April 24, 2023

Federal Trade Commission
600 Pennsylvania Ave NW
Washington DC 20580

Comments of the Association of Plastic Recyclers Regarding Guides for the Use of Environmental Marketing Claims

Green Guides Review, Matter No. P954501

Filed Via Regulations.gov, Docket No. FTC-2022-0077

Dear Commissioners and Staff of the Federal Trade Commission,

The Association of Plastic Recyclers appreciates the opportunity to respond to the Federal Trade Commission's (FTC) Request for Comments on its Guides for the Use of Environment Marketing Claims, or "Green Guides." The Green Guides play a significant role in supporting effective recycling of post-consumer plastic packaging, which consumers value and support. Plastic packaging recycling rates can be increased with more consumer trust and greater participation, and accurate product labeling is an essential part of the solution to improve plastic recycling and the use of recycled plastics into new products. APR urges the FTC to revise the recyclability and recycled content claims to provide stronger guidance that serves to promote more accurate information that in turn encourages greater consumer participation in recycling.

EXECUTIVE SUMMARY

STATE OF THE PLASTICS RECYCLING INDUSTRY

The Association of Plastic Recyclers (APR) is a U.S.-based, international trade organization and the only organization focused exclusively on growing and sustaining the plastics recycling industry.[1] APR's membership includes independent recycling companies of all sizes who process numerous plastic resins, as well as consumer product companies, plastic resin producers, packaging producers, equipment manufacturers, testing laboratories, organizations, and others committed to the success of plastics recycling. **In short, APR members are the entirety of the plastics recycling industry from design to collection to recovery to remanufacturing**. Plastics recycling is what APR members do each and every day. APR members understand the challenges facing the industry and the solutions needed to scale recycling effectively as a key solution to reduce plastic waste and move toward a more sustainable, circular economy.

APR has included a brief overview of plastic packaging recycling markets, trends in recycling rates, and other relevant information on the plastics recycling industry to help the FTC understand

the operations of plastics packaging recycling and how this impacts consumer awareness and trust in recycling. The U.S. has functioning recycling markets for the most widely used consumer plastic packaging: In 2021, over five billion pounds of post-consumer plastics were recovered for recycling from U.S. sources.[2] That is five billion pounds of post-consumer plastic that did not end up in a landfill or the ocean, and was instead processed and made into new products, products with a lower carbon footprint than those made with virgin materials. While much work can and should be done to increase plastic packaging recycling, it is critical for the FTC to understand there are functioning domestic markets for recycling the most widely used consumer plastic packaging, and there is an unprecedented level of regulatory and voluntary initiatives underway to scale up plastic recycling in the coming years as a solution to reduce plastic waste and pollution.

Clear, effective, and accurate consumer-facing labeling is an essential component of these initiatives because confusion about recycling is commonly listed as a top barrier to recycling.[3] Consumer surveys consistently find Americans want to recycle more, including more of their plastics, and believe recycling is good for the environment. Yet households only put in their recycling bin about 60% of all the materials that could be fully recycled, with the rest still ending up in the trash. The lack of full participation in recycling programs demonstrates the strong need for education, incentives, and other tools to influence consumer behavior as key tools to improve recycling.[4] Stronger guidance and increased enforcement from the FTC can help reaffirm trust in the recycling of these widely recyclable packaging formats and increase consumer participation, in turn increasing recycling rates and the positive environmental impacts of recycling.

There is record high demand for recycled PET plastic to be made into new bottles. Looking ahead, it is estimated the recycling rate for PET will need to nearly triple by 2025 to meet the projected demand that is generated from new regulations and corporate commitments.[5] Similar growth rates are needed for high density polyethylene (HDPE) plastics to reach goals of 50% recycled content by 2030.[6] This record high projected market demand provides security that PET and HDPE, the most widely recyclable plastics, will continue to be recycled, and underscores the strong need for more consumer participation and trust in U.S. recycling.

RECOMMENDATIONS ON RECYCLED CONTENT

APR encourages the FTC to adopt more narrow guidance on recycled content claims to only allow such claims when based on use of post-consumer recycled (PCR) content under the ISO definition. Consumers purchase products made from recycled content because they believe the recycled materials come from items that they themselves might recycle in their local recycling program and that by buying recycled content, they are helping to support community recycling programs by strengthening market demand. Consumers have been told this by the Environmental Protection Agency (EPA), state and local recycling programs, environmental organizations, and other credible sources. By contrast, pre-consumer content does not come from local community recycling programs, and purchasing pre-consumer recycled content does not support community programs. In addition, several laws in the U.S., Canada, and the EU specify the use of post-

consumer recycled content and do not allow pre-consumer content to support recycled content claims. A focus on allowing only post-consumer content to support recycled content claims would reflect consumer understanding, align with regulatory definitions, and overall help to rebuild consumer trust in recycling and recycled content labels.

Additionally, consumers do not understand or differentiate between the terms "pre-consumer" and "post-consumer" in discussing recycled content. An APR consumer survey found nearly all adults do not understand the definitions of post-consumer and post-industrial (pre-consumer) recycled content, and they are unlikely to be able to differentiate between them. As such, it is imperative that recycled content claims be simple and straightforward and not use terms like "pre-consumer" with almost no consumer understanding.[7]

APR recommends the FTC continue to uphold its guidance for claims based on "per-product or annual weighted average calculation methods," but not permit recycled claims based on methods such as "mass balance," credit trading or other similar systems. Consumers purchase a product with recycled content with the implied understanding there are recycled materials in that actual product, and claims must conform to that understanding. Making recycled content claims in on-pack labeling, based on mass balance calculations, is deceptive to the consumer because there is little to no physical traceability to prove that there is *any* physical recycled content in the actual product, which is contrary to what the consumer believes to be true.

In addition, APR survey data shows consumers have virtually no understanding of the term "mass balance."[8] Emerging chemical recycling technologies, namely pyrolysis and gasification, require mass balance calculations to track recycled content. However, standards on how to use mass balance to track recycled post-consumer plastic are still being developed and debated, and according to a federal agency review, "There are many unsettled issues, ill-defined terms, and conflicting objectives with regards to the application of MB [(mass balance)] certification to polymers."[9] Based on the outstanding technical concerns around mass balance applications, combined with the lack of consumer understanding of its terms, and the current confusion around recyclability and recycled content claims, APR recommends that the FTC not allow mass balance calculations to support consumer-facing claims.

RECOMMENDATIONS ON RECYCLABILITY

Consumer trust in recycling has significantly declined because of misleading use of recyclability terms, including use of the chasing arrows recycling symbol and phrases like "please recycle" on products and packaging that do not meet the FTC's current guidance on making unqualified recyclability claims. The FTC is in a strong position to move the industry towards compliance in this area and reverse this trend of declining consumer confidence.

APR encourages the FTC to increase enforcement of deceptive unqualified claims of both recyclability and recycled content by providing stronger, more prescriptive guidance, publicizing

specific examples of deceptive representations that are currently in the marketplace, and sending warning letters in cases where companies appear to be making unsubstantiated claims. These actions would require more limited use of agency resources than a formal rulemaking process yet have an outsize impact on the marketplace.

APR encourages the FTC to maintain its current threshold of 60% consumer access for unqualified claims for recyclability claims. The plastic items that most Americans buy, use, and put in their recycling bins – water and soda bottles, laundry detergent jugs, yogurt tubs – do get recycled and there is a strong, immediate need to collect and recycle more of these materials across the U.S. These three packaging types are the most widely recyclable, as well as the most commonly used by households, and they currently meet the FTC guidance for recyclability. The key to rapidly improving U.S. plastics recycling is to focus on scaling up collection programs for these materials. It is critical that consumers trust the labeling of these products as recyclable in order to increase recycling rates.

APR does not support a revision to the Green Guides for unqualified recyclability claims where the recyclable materials were ultimately not recycled due to "market demand, budgetary constraints, or other factors."

RECOMMENDATIONS ON RULEMAKING AND FREQUENCY

There are important policy reforms and private sector initiatives currently underway that will significantly alter recycling regulations, recycling infrastructure, and packaging design across the U.S. and the globe in the coming years. Governments at the state, federal, and global levels are actively debating and defining the criteria used to determine when a product is classified as recyclable, and are swiftly moving toward regulations on recyclability claims, the use of the recycling symbol, and more. These efforts are likely to result in the development of labeling standards that would be based on a more robust set of criteria than the FTC Green Guides and the development of a more comprehensive, independently certified labeling system.

APR requests the FTC conduct another review of the recyclability and recycled content guidance within five years to assess the impacts of the current initiatives and evaluate the need for further FTC guidance at that point. APR also encourages the FTC not pursue a rulemaking process at this time given the substantial changes underway in recycling. APR believes the FTC can have a meaningful market impact by providing more prescriptive guidance and by engaging in more aggressive enforcement using existing tools such as warning letters.

ABOUT THE ASSOCIATION OF PLASTIC RECYCLERS (APR)

The Association of Plastic Recyclers (APR) is a U.S.-based, international trade organization and the only organization focused exclusively on growing and sustaining the plastics recycling industry.[10] APR's membership includes independent recycling companies of all sizes who process numerous plastic resins, as well as consumer product companies, plastic resin producers, packaging producers, equipment manufacturers, testing laboratories, organizations, and others committed to the success of plastics recycling. **In short, APR members are the entirety of the plastics recycling industry from design to collection to recovery to remanufacturing**. Plastics recycling is what APR members do each and every day. APR and its members understand the challenges facing the industry and the solutions needed to scale recycling effectively as a key solution to reduce plastic waste and move toward a more sustainable, circular economy.

APR MEMBERSHIP

APR represents nearly 300 members and membership is publicly available on our website.[11] While APR's membership is primarily U.S.-based, many members have global operations, and our tools and services are used around the world. Half of the visitors to APR's website come from outside the U.S. with significant traffic from China, India, Germany, UK, France, and Japan.

Full Membership is reserved for plastics reclaimers and converters. These are companies that are purchasing postconsumer plastic material and preparing it for end use by two or more of these additional processes: grinding, washing, pelletizing, conduxing, densifying, or chemically or mechanically upgrading the materials to be used or sold to an end-use market. APR has more than 90 full recycler members.

Affiliate Membership is reserved for companies that do not qualify for Full Membership but who have a direct business stake in the recycling of postconsumer plastics. Affiliate members represent a wide variety of roles within the value chain that include brand companies, retailers, recycling and process equipment manufacturers, packaging component manufacturers, converters, testing labs, and others.

APR's Board of Directors is composed of 9 recyclers and 2 affiliate members, demonstrating the organization is run and governed directly by plastic recyclers.

INDUSTRY & STAKEHOLDER ENGAGEMENT

APR staff lead and participate in dozens of working groups on technical and policy issues, and actively maintain relationships with dozens of state, national, and global organizations connected to plastics recycling. APR staff and members are deeply embedded in every aspect of plastics recycling from design to processing to use in new products. APR also participates in many multi-stakeholder networks, including as an Advisory Council member of the U.S. Plastics Pact, an

executive board member of The Recycling Partnership, and an Advisory Board member of the NorthEast Recycling Council (NERC).

Outside the U.S., APR has endorsed the Ellen MacArthur New Plastics Economy Global Commitment and has several strong relationships with European plastics organizations, in particular a working MOU with Plastics Recyclers Europe (PRE). APR also has deepening connections with organizations and businesses in China and Latin America, including the China Scrap Plastics Association (CSPA)[12] in China and ECOCE[13] in Mexico. The annual national Plastics Recycling Conference, co-located with APR's annual meeting, draws thousands of attendees from across the plastics recycling industry nationally and globally.[14]

APR DESIGN® GUIDE FOR PLASTICS RECYCLABILITY

APR provides several industry-leading tools and services used by companies around the world to support and improve plastic recycling, including global models for packaging design, testing, certification, and more. **Our leading tool is the APR Design® Guide for Plastics Recyclability**, which is used by brand companies and packaging suppliers to assess products for their compatibility with recycling. The APR Design® Guide provides a technical evaluation of all the design features and components, including labels, caps, adhesives, and size (see graphic) for their compatibility with recycling. **The APR Design® Guide has been used by dozens of major consumer goods companies and packaging suppliers such as Nestle, PepsiCo, Unilever, Coca-Cola, KraftHeinz, and Colgate-Palmolive, and is globally recognized as the leading technical assessment of recyclability.** California's SB343 labeling law specifically recognizes the APR Design® Guide in statute as the standard for the recyclability of plastic packaging: "For plastic packaging, the plastic packaging is designed to not include any components, inks, adhesives, or labels that prevent the recyclability of the packaging according to the APR Design® Guide published by the Association of Plastic Recyclers."

APR is heavily involved with international efforts to harmonize plastic packaging design by working with Plastics Recyclers Europe (PRE), the Canadian Plastics Pact, and other partners across Mexico, Europe, South America, South Africa, India, and China. The APR Design® Guide has been available in Spanish for over five years, and the majority of the guide has been translated into Mandarin as well. APR's guidelines have also served as models for similar guidelines for paper, aluminum, and glass packaging. APR was a pioneer in initiating design standards over 25 years ago and continues to be on the leading edge of further developing, refining, and expanding guidance as plastics, packaging design, and recycling evolve.

SECTION 2. BACKGROUND ON THE STATE OF U.S. PLASTICS RECYCLING

As the nation's technical experts on plastics recycling, APR appreciates the opportunity to provide evidence on a number of key points to assist the FTC's update of the Green Guides:

1. Broad consumer support for recycling
2. There are functioning plastics recycling markets and plastics recycling has significant environmental benefits
3. Current recycling rate for plastics
4. Which plastics are commonly recycled
5. Misrepresentation of recycling rates in the media
6. Existing markets for recycled plastics
7. Recycling can be improved with greater participation driven through renewed consumer trust

AMERICANS WANT TO RECYCLE AND BELIEVE RECYCLING HELPS THE ENVIRONMENT

Consumer surveys consistently find Americans value recycling and believe recycling is good for the environment:

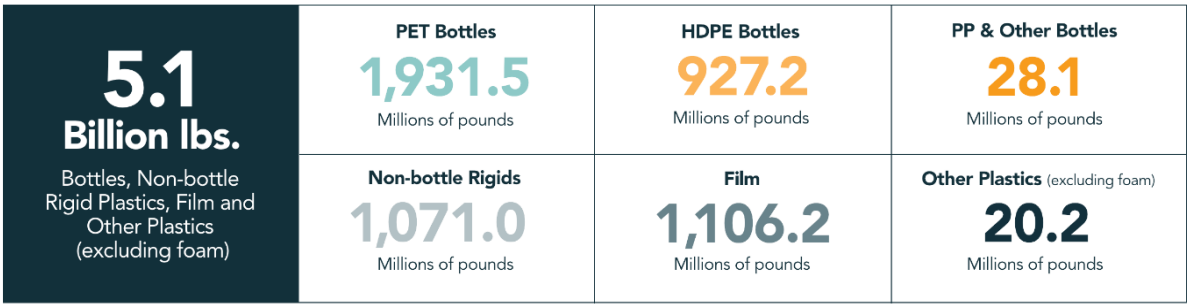
- 76% of residents want to recycle more plastics.[15]
- 80% of households believe recycling has a positive impact.[16]
- 75% of Americans think recycling is the best thing to do for the environment.[17]
- Recycling is the most common action Americans are taking on climate change and they are willing to do more. 71% of Americans already recycle and an additional 16% want to do so in the future.[18]

Support for recycling is strong around the world as well. Data from the World Economic Forum shows people around the world believe recycling is important, and 80% of North American respondents agree it is very important to recycle what we can.[19] Claims around recycling are not only material but critically important for consumers that want to ensure they are recycling appropriately and supporting post-consumer recycled content in their purchasing decisions.

THERE ARE FUNCTIONING MARKETS FOR RECYCLED PLASTICS, AND PLASTICS RECYCLING HAS SIGNIFICANT ENVIRONMENTAL BENEFITS

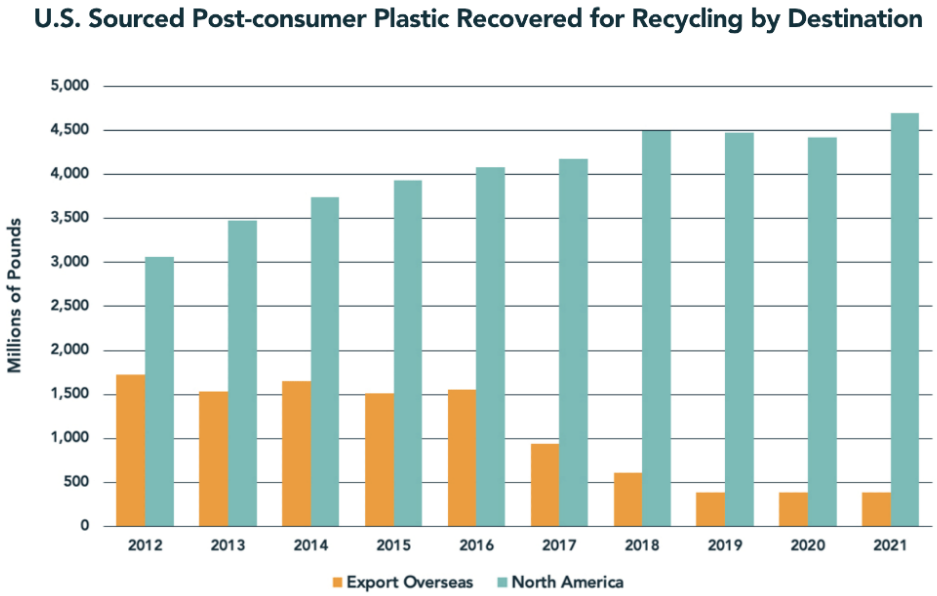
Over five billion pounds of post-consumer plastic materials were recovered for recycling from U.S. sources in 2021.[20] More than 92% of these plastics were recycled within North America and less than eight percent was exported for recycling.[21] That is five billion pounds of post-consumer plastic that did not end up in a landfill or the ocean, and was instead processed and made into new products, products with a lower carbon footprint than those made with virgin materials. The amount of plastics being recycled held steady in 2021 despite a global pandemic and related lockdowns, showing market resiliency and the importance of recycled plastics as a feedstock for U.S. manufacturing.

Figure 1. 2021 post-consumer plastics recycling rates from U.S. sources[22]



This progress toward domestic recycling reinforces that the U.S. is not dependent on foreign recyclers in order to recycle domestic supply of recyclable plastics. In January 2018, China banned nearly all imports of U.S. recycled paper and plastic, which resulted in prices for recyclable materials temporarily falling to record lows and some communities cutting or pausing recycling programs due to budgetary constraints. Communities that closed their recycling programs were primarily smaller, rural areas where recycling has traditionally been challenging to maintain financially, which received outsized media attention. However, the market then corrected, prompting the U.S. to reinvest in domestic recycling infrastructure. Over 92% of the post-consumer plastics recovered from U.S. sources are recycled within North America today compared to just 60% in 2010.[23] Less than 8% of plastics are exported, and the Basel Convention amendments have reduced trade in contaminated or under-processed plastic waste.[24]

Figure 2. Over 92% of plastics were recycled in North America in 2021 compared to just 60% in 2010.[25]



Recycling plastics reduces the need to use fossil fuels to make new plastics, and using recycled materials to make new products is one of the best ways to reduce the environmental impacts of products. Recycling PET and HDPE plastics can save 75% to 88% of the energy used to make virgin plastics and reduce GHG emissions by 70%.[26] Recycling plastics also reduces air and water pollution compared to virgin production.

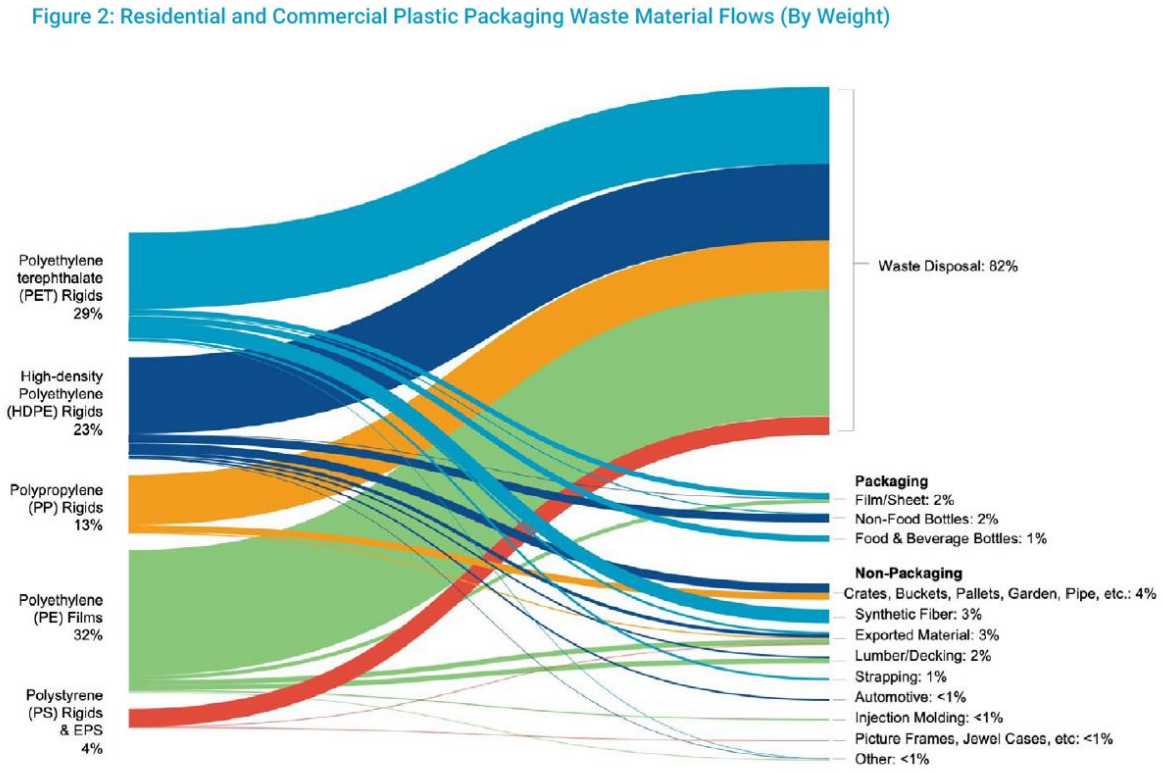
PLASTICS RECYCLING MARKETS ARE STABLE FOR CERTAIN KINDS OF PACKAGING AND PRODUCTS, WITH OPPORTUNITIES TO EXPAND

According to the US EPA data, PET, HDPE, and PP packaging make up 80% of the rigid containers and packaging used by consumers.[27] There are functioning, and primarily domestic, markets and buyers for these three major types of plastics. APR maintains a public directory of recycling markets with what buyers will accept: APR Buyers and Sellers Directory.[28] Additional data can be found at plasticsmarkets.org.[29]

Figure 3. Markets for recycled rigid plastic packaging.

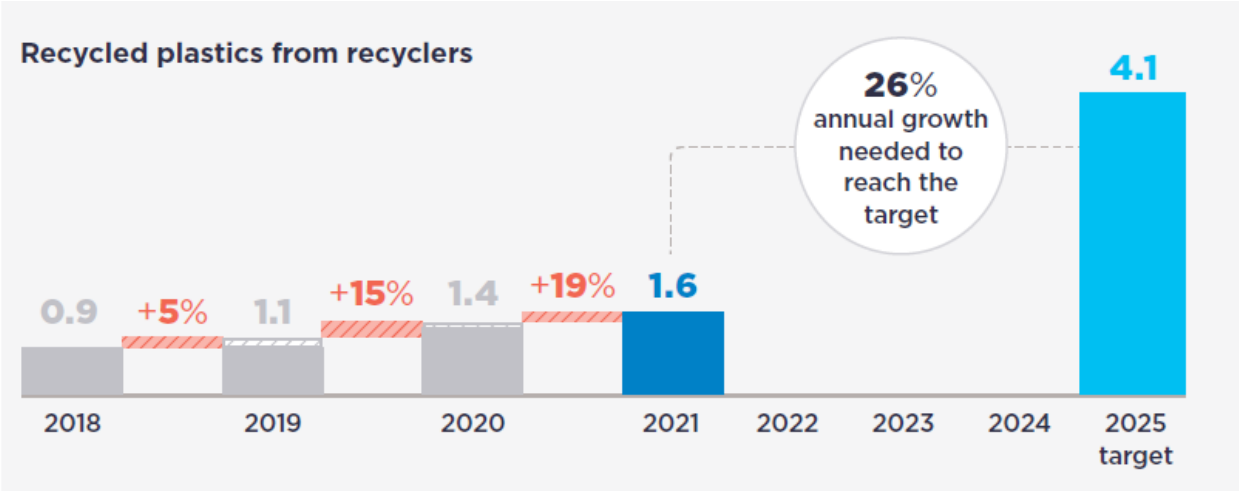
Recyclable Plastic Type	End Product/Market
PET (#1): Includes soda and water bottles, clamshells food containers	Bottles, carpet, plastic sheet & film
HDPE (#2): Includes milk jugs, laundry detergent, shampoo bottles, and tubs	Personal care product packaging, housewares, and drainage pipes
Polypropylene (#5): Includes yogurt tubs, salsa tubs	Paint containers, automotive industry parts, pallets, crates, plastic lumber and other durable goods

Figure 4. [Which plastics are commonly recycled and into what markets.](#)[30]



In particular, there is record high demand for recycled PET and HDPE plastic to be made into new bottles. It is estimated the recycling rate for PET will need to nearly triple by 2025 to meet the projected demand from regulations and corporate commitments.[31] Similar growth rates are needed for HDPE plastics to reach goals of 50% recycled content by 2030.[32] This record high projected market demand provides security that PET and HDPE, the most widely recyclable plastics, will continue to be recycled.

Figure 5. Projected demand for recycled PET exceeds current supply, showing the need to grow recycling collection programs and consumer participation in programs. Source: EMF Global Commitment Report[33]



In addition to efforts to expand plastic recycling for viable materials, there are also significant efforts to phase out problematic plastics that are not recyclable at scale. The most prominent example is the U.S. Plastics Pact's work to identify and phase out 11 problematic plastics.[34] The Pact represents more than 100 businesses, not-for-profit organizations, academic and research institutions, and government agencies. U.S. Pact members or "Activators" produced 33% of all plastic packaging in the U.S. in 2020. Many of the problematic plastics on the Pact list are also being phased out and banned in the EU and Canada. APR encourages the FTC to align with the Pact's problematic plastics list and not allow qualified recyclability claims for materials on this list.

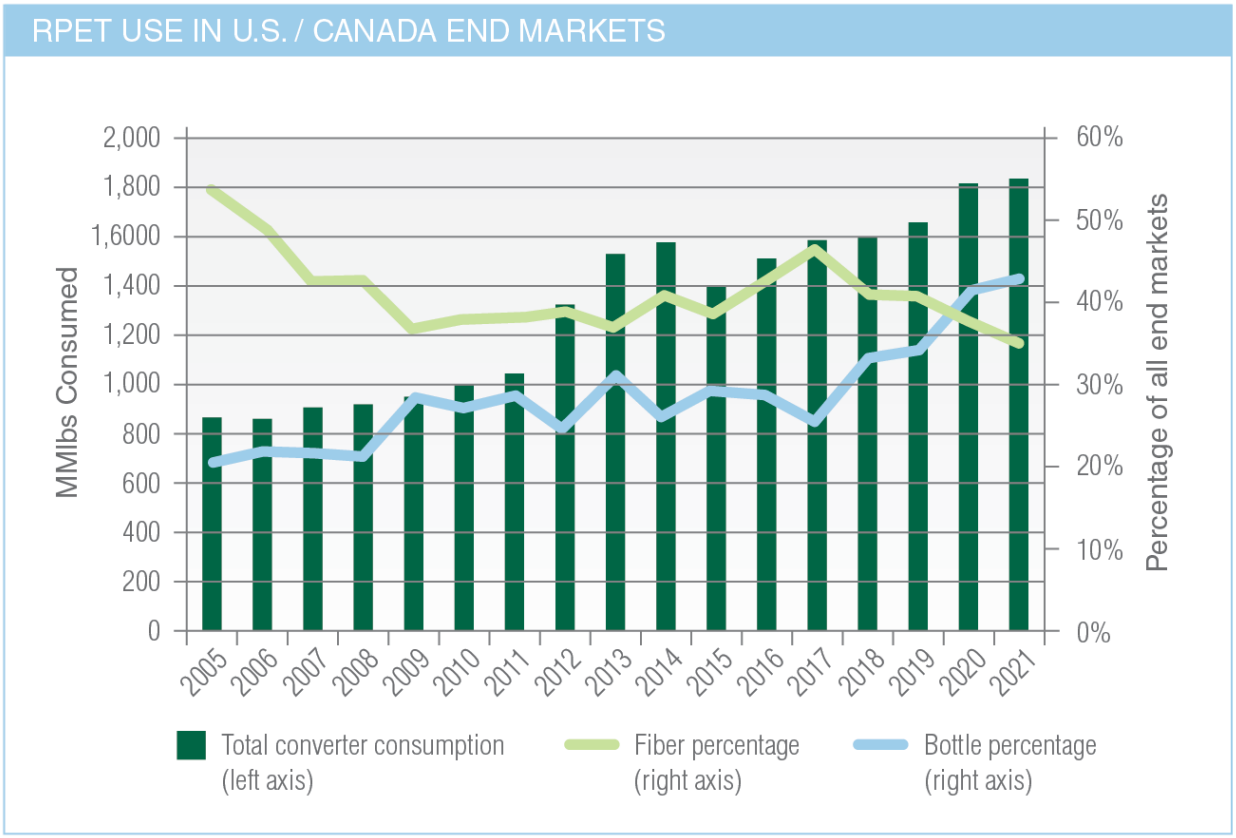
RECYCLED PLASTICS ARE MADE BACK INTO PACKAGING, NOT JUST "DOWNCYCLED"

2021 was an important milestone for plastics recycling because more plastic bottles were recycled back into new bottles than into other product categories like carpet and polyester clothing.[35] This marks an important shift over the past few years toward more bottle-to-bottle

recycling, a trend that is expected to grow significantly in the coming years. This shift toward more bottle-to-bottle recycling has been driven by increasing sustainability commitments from consumer goods companies to buy recycled PET and increasing regulations across the U.S. requiring recycled content in beverage containers. For HDPE, the other most commonly recycled plastic, it is estimated that 40% of HDPE bottles are recycled back into packaging.[36]

This strong shift toward recycling more plastics back into plastic packaging is a significant recognition of recycled plastics as part of the domestic supply chain and an important feedstock for U.S. manufacturing. Growth of recycled plastics into new packaging is expected to continue to grow at record pace for the coming years. The following chart shows the growth in PET recycling and the shift toward more recycling into beverage containers.

Figure 6. More beverage containers are now recycled into new bottles than any other uses.
Source: Resource Recycling based on NAPCOR data[37]



Source: NAPCOR 2021 PET Recycling Report

MOST OF WHAT IS CORRECTLY PUT IN CURBSIDE BINS GETS RECYCLED

While there have been claims reported by the media that assert or imply that most of the plastics people put in their bins are not recycled, such claims are false, and the data shows the opposite. In fact, the large majority of the plastics collected for recycling are #1 PET beverage bottles and #2 HDPE bottles and jugs. These plastics are effectively recycled across the country and have an established and functioning recycling infrastructure. In addition, polypropylene containers are accepted by over 60% of communities and also have established markets. Combined, these three types of plastic containers make up over 80% of rigid plastic containers and packaging.[38]

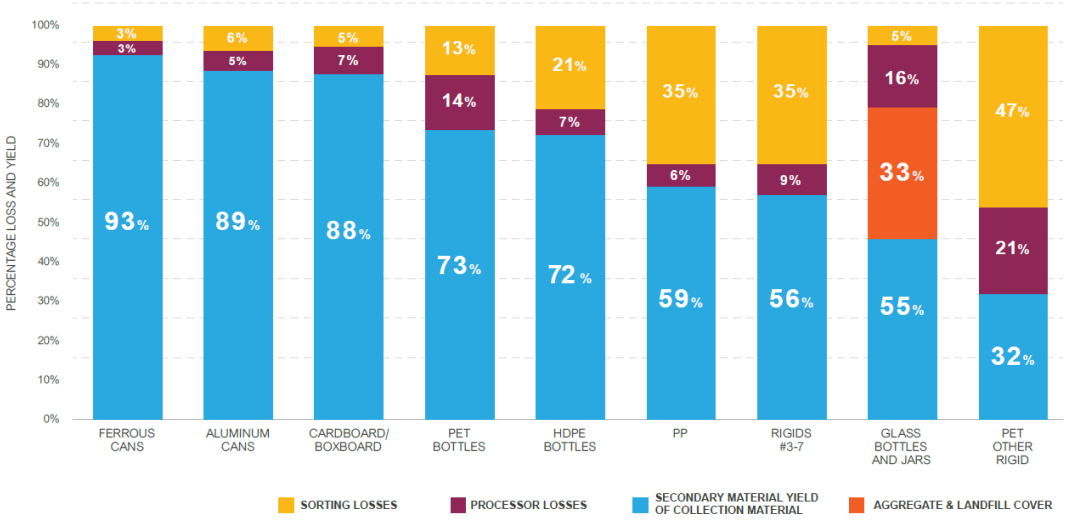
Some of what residents put into the recycling bin is unwanted materials that are not recycled or recyclable.[1] An average of 17% of what is collected in curbside recycling programs is contamination, or unwanted materials, that includes everything from dirt and rocks to nonrecyclable plastic packaging to furniture and bowling balls.[39] Recyclers and materials recovery facilities (MRFs) pay to dispose of contamination, and better labeling can help reduce contamination from nonrecyclable packaging.

During the sorting and processing, some materials are lost due to processing inefficiencies, and recyclers also pull out moisture, dirt, labels, and other nonrecyclables. However, the large majority of those materials accepted in recycling programs are sorted and processed for secondary feedstocks. The following chart shows the sorting and processing losses for most recyclable materials and how the **majority of recyclable materials in curbside recycling programs are in fact recycled and used to make new products.**

Figure 7. Typical loss rates at MRF and processing facility for CCPM, along with percentage of material that becomes a secondary material. *Source: Ball 50 States of Recycling Report* [40]

[1] The U.S. Post-consumer Plastic Recycling Data Report does not count materials discarded as contamination at the MRF. The report is based on the gross pounds of post-consumer plastic commodities (baled or otherwise consolidated) acquired by markets for recycling.

FIGURE 2: TYPICAL LOSS RATES AT A MRF AND PROCESSING FACILITY FOR CCPM, ALONG WITH PERCENTAGE OF MATERIAL THAT BECOMES A SECONDARY MATERIAL



INACCURATE MEDIA CLAIMS THAT PLASTICS ARE NOT RECYCLED

A related claim often reported by the media is that only 5-10% of plastics are recycled, but these statistics do not show that less than 10% of the plastics collected in recycling programs are recycled; instead, these statistics show that 10% of plastics produced have been *collected* for recycling. These statistics are measuring entirely different processes.[2] Plastics are used in myriad applications, and, as such, "plastics recycling" refers to a diversity of processes for different products. Data and communication about plastics recycling must be reflective of this diversity in product types.

More than 55% of all plastics are used in non-packaging applications such as medical devices, car parts, clothing, electronics, and more, and these products are not part of the curbside recycling system.[41] Nor do consumers associate general recycling with these products—consumers are focused on their own residential recycling of plastic packaging, which has substantially higher recycling rates and is widely recycled after being collected from consumers. For example, PET and HDPE bottles have a recycling rate of 28%.[42] The greatest challenge to increasing the recycling rate for these materials is to collect more bottles from consumers. Recyclers have the existing processing capacity today to immediately raise this rate to over 40% if consumers recycled more of these bottles.[43] The misrepresentation of recycling rates for consumer-facing packaging undermines consumer trust and is detrimental to recycling of all materials in residential recycling programs.

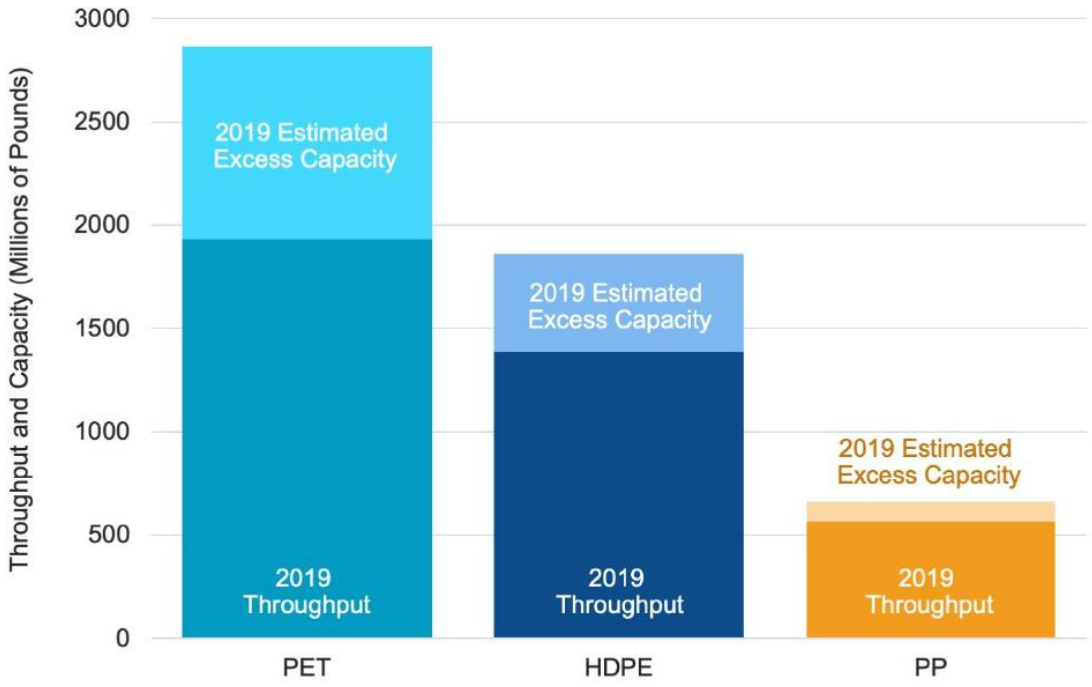
[2] See this article for a detailed rebuttal on the misuse of statistics of plastics recycling and how different measurements are misstated in the media.

RECYCLING CAN BE IMPROVED WITH MORE PARTICIPATION AND LEGISLATION

THE RECYCLING INDUSTRY HAS EXISTING CAPACITY TO RECYCLE MORE RIGID PLASTICS

In addition to the high demand for recycled PET, recyclers have the existing capacity to process 50% more PET, HDPE, and PP.[44] Recycling operations across the U.S. are running at less than 100% capacity because of the limited supply of materials. What is needed is greater consumer access to recycling and more consumer participation in recycling. Consumer trust in recycling claims on packaging – which the FTC can help facilitate through clear guidance, consumer education, and calling out bad actors – can help restore trust in recycling programs, which will increase participation and result in stronger recycling programs and higher recycling rates.

Figure 8. Recyclers have capacity to process more PET, HDPE, and PP if consumers recycle more. *Source: Recommendations for Recycled Content report*[45]



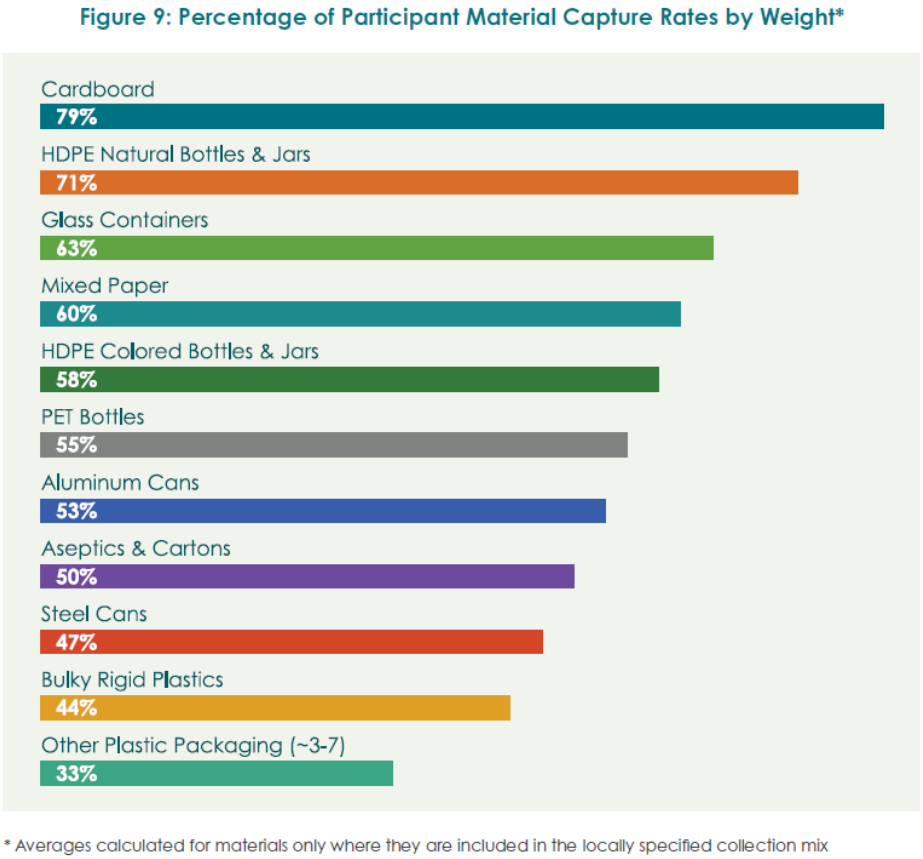
Additionally, in just the past two years, four states (California, Colorado, Maine, and Oregon), representing over 15% of the U.S. market, have implemented extensive Extended Producer Responsibility (EPR) policies that require brand owners to pay for recycling. More than 10 states proposed similar policies in 2023 and federal legislation has been proposed in Congress as well. These policies will usher in a massive private sector investment into recycling collection and processing infrastructure. In addition, four states (California, Maine, New Jersey, and Washington) require the use of post-consumer recycled content plastic in beverage bottles, some

personal care products, trash bags, and other products. All combined, these legislative actions demonstrate a strong, growing demand for more recycled plastics, which will provide greater stability to the US recycling system in the coming years.

MEDIOCRE PARTICIPATION RATES FOR ALL RECYCLABLE MATERIALS HOLD BACK PROGRESS IN RECYCLING

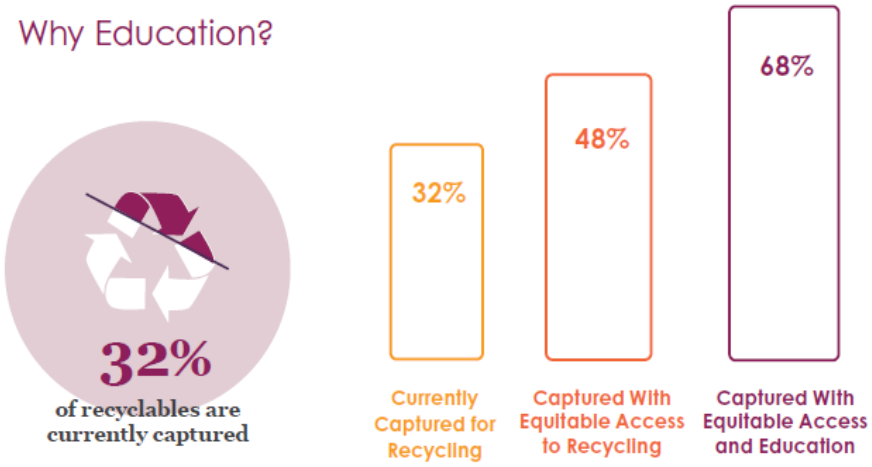
U.S. recycling programs can collect more plastics today and significantly increase plastics recycling rates, and better labeling is part of the solution to drive stronger participation. Data shows Americans believe in recycling, yet participation rates are mediocre at best. Three out of ten households do not participate in recycling at all.[46] Households that do recycle only put some of the recyclable materials in their recycling carts–a significant amount of recyclable materials are thrown away by households with convenient recycling service. On average households are only recycling about 61% of the recoverable materials.[47] Capture rates can be improved significantly across paper, glass, plastic, and metal (see chart below on capture rates).

Figure 9: Households with recycling services still throw away a significant portion of recyclable materials. *Source: State of Curbside Recycling Report*[48]



The lack of full participation of households in recycling programs demonstrates that education, incentives, and other tools to influence consumer behavior are a necessary part of the solution to improve recycling. Improved labeling is a key component of this suite of tools to improve participation because confusion about recycling is commonly listed as a top barrier to recycling.[49] In fact, a national report from The Recycling Partnership on how to improve U.S. residential recycling found there was more to be gained by improved education programs than in expanding recycling infrastructure.[50]

Figure 10. National data shows increased education around recycling will result in significant increases in U.S. recycling rates, even greater than just giving more residents recycling services. *Source: Paying it Forward*[51]



SECTION 3. PREVALENCE OF FALSE CLAIMS OF RECYCLABILITY

This section will cover responses the FTC questions:

A. General Issues

1. Is there a continuing need for the Guides? Why or why not?
3. What modifications, if any, should be made to the Guides to increase their benefits to consumers?
4. What impact have the Guides had on the flow of truthful information to consumers and on the flow of deceptive information to consumers?
7. Please provide any evidence that has become available since 2012 concerning consumer perception of environmental claims, including claims not currently covered by the Guides. Does this new information indicate the Guides should be modified? If so, why, and how? If not, why not?
13. What evidence is available concerning the degree of industry compliance with the Guides?

Through the current guidance on recyclability claims, the Green Guides provide an important baseline for avoiding deceptive claims, but compliance with the Guides has been inconsistent. Lack of compliance throughout the marketplace adds to consumer confusion and penalizes those companies that are doing the right thing by eroding trust in their claims. Consumer confusion also increases contamination in the recycling system, which has increased costs, reduces material quality, and puts substantial strain on recycling operators. Widespread reports of contamination rates further erode consumer trust that their materials get recycled. Additionally, companies that follow FTC guidance are disadvantaged in the marketplace, and this jeopardizes their ability to effectively compete for consumer demand based on touting recyclable packaging.

Misleading labels that contribute to consumer distrust of recycling cast doubt on the entire recycling system, not just plastics recycling, and leave people less likely to recycle overall. Less recycling leads to more virgin resource extraction to make new products, which in turn leads to more climate pollution, more fossil fuel extraction, more air and water pollution, and more health risks – issues that consumers increasingly care about and want companies to take action to address.

APR understands that numerous groups are expected to submit extensive comments on the prevalence of false claims and provide substantial examples. As such, APR will limit its comments to raise two concerns with existing labels:

1. Use of recycling symbol with no qualifying claim
2. Differentiation between technically recyclable and widely collected for recycling

STAND-ALONE RECYCLING SYMBOL AND "PLEASE RECYCLE" IMPLY RECYCLABLE BUT ARE USED INAPPROPRIATELY ON MANY PRODUCTS

There is pervasive use of a stand-alone chasing arrows recycling symbol on many types of packaging, often but not always accompanied by the text "please recycle." This labeling implies the package is recyclable, as the FTC currently states under Example 10 of aluminum can recycling. Yet this text and the recycling symbol are widely used without any consistency between products that are, or are not, widely recyclable, and it carries no substantiation of the product recyclability or instruction to the consumer on how to recycle the products. A few examples are given below of misleading claims of implied recyclability with this symbol or language.

The current FTC Green Guides do not allow for this kind of use, based on its guidance on recycling symbols and general environmental claims:

> The current FTC Green Guides state that the recycling symbol "symbol likely conveys that the packaging is both recyclable and made entirely from recycled material. Unless the marketer has substantiation for both messages, the claim should be qualified. The claim may need to be further qualified, to the extent necessary, to disclose the limited availability of recycling programs and/or the percentage of recycled content used to make the package."
>
> In addition, the Guides state that "Unqualified general environmental benefit claims are difficult to interpret and likely convey a wide range of meanings. In many cases, such claims likely convey that the product, package, or service has specific and far-reaching environmental benefits and may convey that the item or service has no negative environmental impact."

Unqualified and unsubstantiated use of the recycling symbol for products that are not recyclable is already interpreted by the FTC as deceptive to the consumer, yet its use remains prevalent on many packaging formats. APR strongly urges the FTC to provide stronger guidance about these kinds of misleading claims, and to increase enforcement actions against these claims. The FTC is in a unique position to move the industry towards compliance in this area. APR requests that the FTC publicize specific examples of deceptive representations that are currently in the marketplace and/or send warning letters in cases where companies appear to be making unsubstantiated claims. These actions would require more limited use of agency resources yet have an outsize impact on the marketplace.

Figure 11. Examples of several personal care products with an unqualified recycling symbol that is deceptive to consumers because of implied recyclability.

Plastic bags are one of the most challenging contaminants for curbside recycling programs and commonly have symbols or language implying recyclability. Bags are commonly collected for recycling in store take-back or drop-off center recycling programs but are rarely accepted in curbside recycling programs.

Misleading recycling labels are also used on non-plastic products such as coated paper packaging. This frozen food box and coated paperboard takeout container are not widely recyclable because of the plastic coatings.

APR DESIGN GUIDE SUPPORTS FTC IN DETERMINING DETRIMENTAL FEATURES

The APR Design® Guide for Plastics Recyclability can be used by brand companies and packaging suppliers to test products for their compatibility with recycling.[52] The APR Design® Guide provides a technical evaluation of all the design features and components, including labels, caps, adhesives, and size. This test measures whether or not the packaging and all its components are designed for recycling. The FTC recognizes the importance of the design elements as part of the determination of a qualified claim, stating in (d): "*If any component significantly limits the ability to recycle the item, any recyclable claim would be deceptive. An item that is made from recyclable material, but, because of its shape, size, or some other attribute, is not accepted in recycling programs, should not be marketed as recyclable.*"

Any product deemed detrimental to recycling by the APR Design® Guide should not be considered recyclable. The state of California requires companies to comply with the APR Design® Guide as part of its assessment of recyclability claims.[53] **APR urges the FTC to reinforce in its guidance that materials that are not technically "capable of being recycled" because of detrimental features should not be labeled as recyclable.**

DIFFERENTIATING BETWEEN TECHNICALLY RECYCLABLE AND WIDELY COLLECTED

The APR Design® Guide evaluates the technical recyclability of a product but it does not assess if consumers have access to recycling the product. This means there are products that are technically compatible with recycling yet lack functioning collection systems that meet the FTC criteria for an unqualified claim. Examples include toothpaste tubes, coffee pods, blister packaging, and some film plastics.

Designing a product to be compatible with recycling is an important step in the process, but it is insufficient in and of itself in validating the recyclability of the product. **APR asks the FTC to reinforce its guidance that the advertisers bear the burden of showing the product meets the current 60% recyclable threshold, and APR's technical recycling determination is not a substitute.** In addition, companies should not misrepresent that APR endorses their products if they simply conduct this testing with no involvement by APR. If APR reviews the results, the company can enter into a licensing agreement with APR to use APR's name and logo through APR's voluntary recognition programs established for this purpose.

SECTION 4. FEEDBACK ON RECYCLED CONTENT CLAIMS

Using post-consumer resin (PCR) content in plastic packaging is one of the most effective ways to reduce the environmental impact of the packaging.[54] Using post-consumer recycled plastics to make new products can reduce the demand for virgin materials in new products, significantly reducing emissions associated with material production and resource extraction. Consumers purchase products with PCR to support these environmental benefits.

The increased use of post-consumer recycled content in products and packaging also supports the stability and expansion of local recycling programs by creating a greater market demand and financial value for these recycled materials, which then in turn leads to improvements in collection, sorting, and processing programs. Stronger, more consistent demand for post-consumer recycled plastics is crucial to driving end market investment, innovation, and growth so more recyclable materials from consumers can be remanufactured into new products.

APR encourages the FTC to adopt more narrow guidance on recycled content claims to only allow such claims when based on use of post-consumer recycled (PCR) content under the ISO definition. APR also recommends that the FTC continue to uphold its guidance for claims based on "per-product or annual weighted average calculation methods," but not permit recycled claims based on methods such as "mass balance," credit trading or other similar systems.

This section will cover:

1. Different types of recycled content and declining trust in recycled content labels
2. Consumers believe recycled content comes from their own recyclables and supports local recycling programs
3. Legislative requirements on post-consumer content for plastics
4. Specifying the percentage of recycled content
5. Recycled content claims should not include the recycling symbol
6. Mass balance calculations should not be allowed to qualify consumer-facing recycled content claims
7. Recycled content claims should not be based on credit trading schemes
8. Trend toward third party certification of post-consumer recycled content

DIFFERENTIATING POST-CONSUMER AND POST-INDUSTRIAL RECYCLED CONTENT

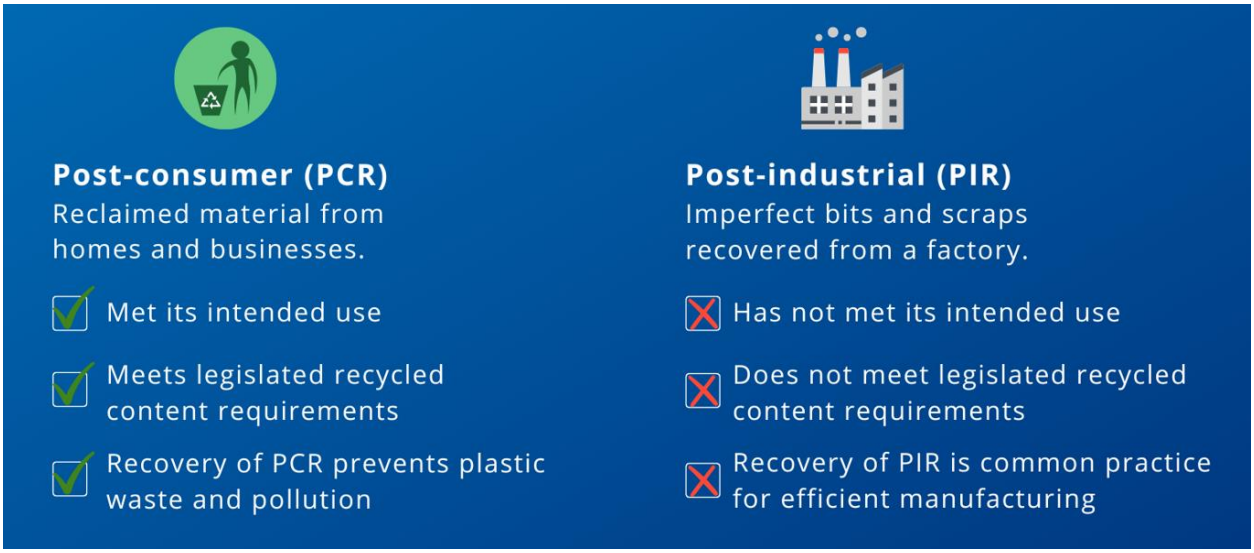
Post-consumer recycled (PCR) content comes from recycled materials collected after they have been used by consumers or businesses; in other words, PCR is sourced directly from the products recycled in a curbside recycling cart at peoples' homes, businesses, or schools. By contrast, pre-

consumer or post-industrial content (PIR) refers to the scrap materials produced in the industrial manufacturing process, or products or packaging that have not entered the distribution chain.

It is common business practice for manufacturers to reuse PIR scrap material in their own manufacturing operations because it improves operational efficiency and reduces waste. Manufacturers can also sell this scrap to other companies more easily than PCR because PIR scrap is more consistent in terms of its composition and generally requires less sorting. In short, using pre-consumer recycled content in the manufacturing process makes business sense and is not reliant on consumer behavior to increase usage. Companies would not be disadvantaged if only post-consumer recycled content claims are used for on-pack labeling because such changes are highly unlikely to change their manufacturing practices. Further, there is no burden on brands on adding greater clarity for pre-consumer marketing claims as the sourcing is typically known or readily identified.

However, the use of post-industrial recycled materials does not support the expansion of residential recycling programs because those materials are not collected or processed through community recycling programs. Since consumers perceive that using more recycled content will drive investments and improvements in community recycling collection and processing, and that recycled content is made from the products recycled by the consumer themselves, it is critical to prioritize the use of PCR content over PIR content in labeling and regulations.

Figure 12. The difference between pre-consumer and post-consumer recycled content



POST-CONSUMER RECYCLED CONTENT USAGE AND PROJECTIONS

Post-consumer recycled content use in packaging has increased in recent years due to voluntary commitments of, and regulations on, consumer goods companies, but virgin plastic still

dominates the market. The chart below shows estimated recycled content usage in the most common packaging formats, and how those rates could increase in the coming years with the adoption of strong policies and increased collection of plastics for recycling.

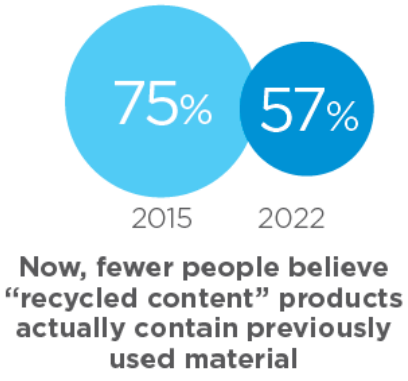
Figure 13. Estimated post-consumer recycled content rates and potential growth opportunities with policy interventions. Source [55]

EXAMPLE PRODUCTS	2019/2020 EST. % PCR (US & CANADA)	2025 % PCR	2030 % PCR	2035 % PCR	2040 - 2050 % PCR
PET Bottles	11%	15%	20%	25%	30 - 40%
PET Thermoforms	16%	16%	20%	25%	30 - 35%
HDPE Bottles	17%	17%	20%	25%	30 - 40%
PP Packaging	0%	5%	10%	15%	25 - 30%

DECLINING TRUST IN LABELING ON RECYCLED CONTENT NECESSITATES MORE CLEAR, STRINGENT GUIDANCE

Overall consumer confidence in products labeled with recycled content is declining:[56]

1. Consumers are less likely to understand what recycled content means
    a. 61% in 2022, down from 69% in 2015
2. Consumers are less likely to believe the product is made from used materials.
    a. 57% in 2022, down from 75% in 2015



These findings are consistent with declining trust in recyclability claims.[57] The FTC review of the Green Guides comes as a pivotal time to reduce consumer deception and increase public trust in these terms. A narrower scope of recycled content claims based on post-consumer recycled content would build greater trust with consumers because it is more true to the intention of the consumer and demonstrates more rigorous standards.

CONSUMERS BELIEVE RECYCLED CONTENT COMES FROM THEIR OWN RECYCLABLES AND SUPPORTS LOCAL RECYCLING PROGRAMS

> *Response to 7. Recycled Content, 16 CFR 260.13. The Guides state marketers may make "recycled content" claims only for materials recovered or otherwise diverted from the solid waste stream, either during the manufacturing process or after consumer use. Do the current Guides provide sufficient guidance for "recycled content" claims?*
>
> *9. Recycled Content, 16 CFR 260.13. What changes, if any, should the Commission make to its guidance on pre-consumer or post-industrial recycled content claims? How do consumers interpret such claims? Please provide any relevant consumer perception evidence*.

The current FTC guidelines state "Recycled content claims may – but do not have to – distinguish between pre-consumer and post-consumer materials." **APR urges the FTC to revise its guidance to only allow companies to make unqualified recycled content claims when using post-consumer materials.**

Consumers purchase products made from recycled content because they believe the recycled materials come from items that they themselves might recycle in their local recycling program, and that by buying recycled content, they are helping to support community recycling programs by strengthening market demand. This consumer perception comes from what households have been told by the EPA, state and local recycling programs, and other credible sources about why to buy recycled:

- EPA Comprehensive Procurement Guidelines specifically state the goal is to support local recycling programs: "CPG continues the effort to promote the use of materials recovered from the municipal solid waste stream. Buying products made with recovered materials ensures that the materials collected in recycling programs will be used again in the manufacture of new products."[58]
- EPA Region 9: "Each individual purchase contributes to resource conservation, as well as to stable markets for the recyclables many communities collect."[59]
- Massachusetts Recycling Works program: "you prevent those materials from ending up in a landfill and do your part to maintain consumer demand for recyclables and ensure the continuation of recycling programs."
- Minnesota Recycling Organization: "We can be the best recycling collectors in the world, but if we are not intentional about the circular nature of recycling we are missing a critical part of it. There are a lot of manufacturers in Minnesota that make products using recycled material, the same recyclable materials that you put in your curbside bin!"[60]
- Connecticut Buy Recycled policy: "Why buy recycled? Creates markets for materials collected in residential & business recycling programs, thus increasing their value."[61]

Consumers rarely hear any information on industrial recycling or PIR scrap materials. The EPA, state agencies, and other trusted sources of information about recycling refer almost exclusively to municipal recycling and not industrial recycling. EPA data on recycling rates refers only to municipal recycling. Since there is little to no information given to consumers on industrial recycling programs, it is very unlikely that consumers intend to support PIR use when purchasing recycled content. As such, only products with post-consumer recycled content are aligned with the intentions and understanding of the consumer in purchasing that product.

RESIDENTS ARE MORE LIKELY TO RECYCLE IF THEY UNDERSTAND PRODUCTS ARE MADE FROM OLD MATERIALS

Data shows consumers relate to and support recycling claims that specifically refer to a product being made into a new product, or showing the past life of the packaging.[62] For example, consumers relate to a bench made from recycled plastic bottles, ocean plastic made into shampoo bottles, or fishing nets made into sunglasses. In all these cases, **consumers are relating to products that have been used in the marketplace and then collected and recycled into a new product.** This is vastly different from pre-consumer materials that never reach the consumer marketplace.

In addition, the aforementioned research demonstrates that this correlation makes consumers more likely to recycle. According to the study, "the researchers found that consumers are inspired by the transformation of recyclables into new products and that this inspiration process motivates them to recycle."[63] This data strongly supports that **recycled content claims should only apply to PCR content that aligns with the consumer perception of buying a product made from a previously discarded product and that the consumer trust in a product being made from post-consumer materials will actually lead to more recycling,** which is also an implied benefit of the consumers willingness to buy a recycled product.

CONSUMERS DO NOT DIFFERENTIATE ANY RECYCLED CONTENT LANGUAGE

A consumer survey commissioned by APR found nearly all adults do not understand the exact meaning of "made with post-industrial recycled material" (97%) nor the exact meaning of "made with pre-consumer recycled material" (98%) and are unlikely to be able to differentiate between these terms and the term "made with post-consumer recycled material."[64] One-half (49%) of adults have little or no awareness of the claim of "post-industrial content" and 50% of adults have little or no awareness of the claim "made with pre-consumer recycled material." This research indicates recycled content claims should not attempt to differentiate between types of recycled content because there is no recognition from consumers.

In addition, when asked an open-ended question (Question 5 in APR survey) about the definition of "made with recycled content," almost all responses that provided detail used a formulation

consistent with the use of content from curbside/municipal recycling.[65] This further suggests consumers believe their recyclables are used to make products with recycled content, which is only consistent with post-consumer recycled content.

U.S. AND EU LEGISLATION SPECIFICALLY REQUIRE POST-CONSUMER CONTENT FOR PLASTICS AND SHOULD ALIGN WITH PACKAGING CLAIMS

Over the past three years, four U.S. states (California, Maine, New Jersey, and Washington) have enacted requirements for companies to use post-consumer recycled content in plastic beverage bottles, trash bags, and personal care products.[66] There is also proposed legislation in several other states as well as at the national level. These policies specifically distinguish between pre- and post-consumer recycled content and require the use of post-consumer plastics. In addition, voluntary industry goals such as the US Plastics Pact commitment to 30% recycled content are also based specifically on post-consumer recycled plastics.[67]

This distinction of post-consumer versus pre-consumer is also aligned with EU regulations, such as in the Single Use Plastics Directive (where the plastic recycled content target is only valid for beverage bottles already placed on the market), the Packaging and Packaging Waste Directive (that excludes production residues from the definition of packaging waste), and the 2018 Plastics Strategy.[68] There is also a legal ruling in Europe that pre-consumer material should not be classified as waste "because this is an efficiency measure for the production process, as it saves raw material and provides a financial and operational advantage to the producer and not a burden."[69]

Given the national and global regulatory push toward post-consumer recycled content, APR believes it would be prudent for the FTC to align recycled content claims with the regulations specifying post-consumer recycled content to reduce consumer confusion and drive compliance with regulations.

WEBSITE OR OTHER OFF-PACK INFORMATION CAN BE USED TO SUPPORT NON-DECEPTIVE PRE-CONSUMER CONTENT INFORMATION

APR supports the use of website information, data in environmental, social, and governance (ESG) reports, smart labeling, or other applications outside of on-pack labeling to communicate the use of pre-consumer recycled content. Given that consumers have limited awareness of pre- and post-consumer recycled content, it is very challenging to provide enough information on-pack to explain the difference in a way that provides enough clarity to consumers. Current on-pack claims of "made with recycled materials" are misleading and insufficient. APR firmly supports limiting claims used for on pack labeling to only post-consumer recycled content to provide the greatest clarity to the consumer.

RECYCLED CONTENT CLAIMS MUST CONTINUE TO INCLUDE A SPECIFIC PERCENTAGE OF RECYCLED CONTENT

Current FTC guidance requires companies to specify the amount of recycled content if it is less than 100%: *"Marketers can make unqualified claims of recycled content if the entire product or package, excluding minor, incidental components, is made from recycled material. For items that are partially made of recycled material, the marketer should clearly and prominently qualify the claim to avoid deception about the amount or percentage, by weight, of recycled content in the finished product or package."*

APR strongly supports the continued requirement to specify content percentages. Labels should clarify the actual percentage of recycled content if it is less than 100% in order to avoid deception. APR's research has shown that a significant number of consumers understand "made with recycled materials" to mean the products were made entirely of recycled materials.[70] Additionally, use of such quantified claims is common in the marketplace. Similar quantified representations are used in Fair Trade or organic claims to communicate a percentage of the ingredients that meet the certification, i.e., made with 57% Fair Trade cacao or the use of asterisks on ingredient lists to demarcate which ingredients are organic.

CONSUMER-FACING LABELING ABOUT RECYCLED CONTENT SHOULD NOT INCLUDE THE USE OF THE RECYCLING SYMBOL OR CHASING ARROWS

Section § 260.13 Recycled Content Claims of the current Green Guides states that *"By itself, the [recycling] symbol likely conveys that the packaging is both recyclable and made entirely from recycled material. Unless the marketer has substantiation for both messages, the claim should be qualified."* **APR urges the FTC to provide more specific examples and greater enforcement to uphold this guidance.** The implication of recyclability when using a recycling symbol to represent recycled content is misleading to the consumer. If companies are to use a symbol to represent recycled content, it should be presented alongside a qualified recyclability claim and not used independently so it can be clearly distinguished by the consumer. (Note that this does not pertain to the required use of RICs and the current FTC allowance for the inconspicuous use of the RICs and chasing arrows.)

UPHOLD CURRENT GUIDANCE ON PER-PRODUCT AVERAGING

> *Response to 8.Recycled Content, 16 CFR 260.13. The Guides suggest marketers can substantiate "recycled content" claims using per-product or annual weighted average calculation methods. Should the Guides be revised to provide guidance on making "recycled content" claims based on alternative method(s), e.g., mass balance calculations, certificate (i.e., credit or tagging) systems, or other methods?*

APR supports the current FTC guidance on using per-product or annual weighted average calculation methods. Market disruptions in the supply of recycled materials, as seen across most commodity markets, can impact the ability of companies to source consistent levels of PCR. It is reasonable to provide companies with this flexibility in claims based on yearly averages while still maintaining a strong level of validation in substantiating consumer claims.

APR supports the current version of the Green Guides in how it permits organizational averaging to substantiate specific claims of a certain lower percentage of recycled content. The Green Guides provide specific guidance as to how to substantiate a claim of 50% recycled content, for example (Section 260.13, Example 7), presumably consistent with reasonable consumer understanding of a "50%" recycling claim and recognition that exact sourcing for any particular product may not be feasible. A 100% recycled claim, however, does not suggest that there has been any averaging or calculations on the part of the product marketer, because it conveys that all or nearly all of the product is produced from recycled content. And indeed, Section 260.13(c) treats these claims differently: "unqualified claims of recycled content" when an "entire product or package, excluding minor, incidental components, is made from recycled material," as opposed to qualified claims for "items that are partially made of recycled material."

FTC SHOULD PROVIDE EXAMPLES OF INCIDENTAL COMPONENTS

Recycled content reporting requirements in California and Washington specify which components of the packaging must be made with recycled content. For example, these policies are focused on the plastic bottles and provide an exemption for labels, caps, and other closures. It would be preferable for the FTC to align with these definitions of incidental components to ensure compliance with regulatory and marketing claims.

MASS BALANCE CALCULATIONS SHOULD NOT BE ALLOWED TO QUALIFY CONSUMER-FACING RECYCLED CONTENT CLAIMS

> *Response to 8. Content, 16 CFR 260.13. The Guides suggest marketers can substantiate "recycled content" claims using per-product or annual weighted average calculation methods. Should the Guides be revised to provide guidance on making "recycled content" claims based on alternative method(s), e.g., mass balance calculations, certificate (i.e., credit or tagging) systems, or other methods?*

Mass balance is generally understood to be a chain of custody model accounting for material entering and leaving a defined system where there is limited visibility to track the direct flow of outputs into specific products. While mass balance is used as an allocation standard with other commodities such as fair trade coffee, its use to track and certify recycled post-consumer plastic is relatively new, and the parameters and guiding principles are still being developed in Europe and North America. According to the National Institute of Standards and Technology's (NIST) of

mass balance for recycling, "There are many unsettled issues, ill-defined terms, and conflicting objectives with regards to the application of MB [(mass balance)] certification to polymers."[71]

Pyrolysis and gasification are the two most commercially developed technologies considered under the umbrella of chemical recycling technologies. These technologies require mass balance calculations to track recycled content.[72] Many of these proposed facilities are large petrochemical plants processing many different types of fossil fuel inputs and producing many different types of products including fuels, waxes, virgin plastics, gasses, and more. According to NIST, "once recovered polymers are mixed with their virgin counterparts and chemically reprocessed, they are, in principle, indistinguishable from one another. This mixing of recycled and virgin inputs poses a challenge in the accounting for recycled content in the output of plastic products and packaging, particularly in the case of chemical processes."[73]

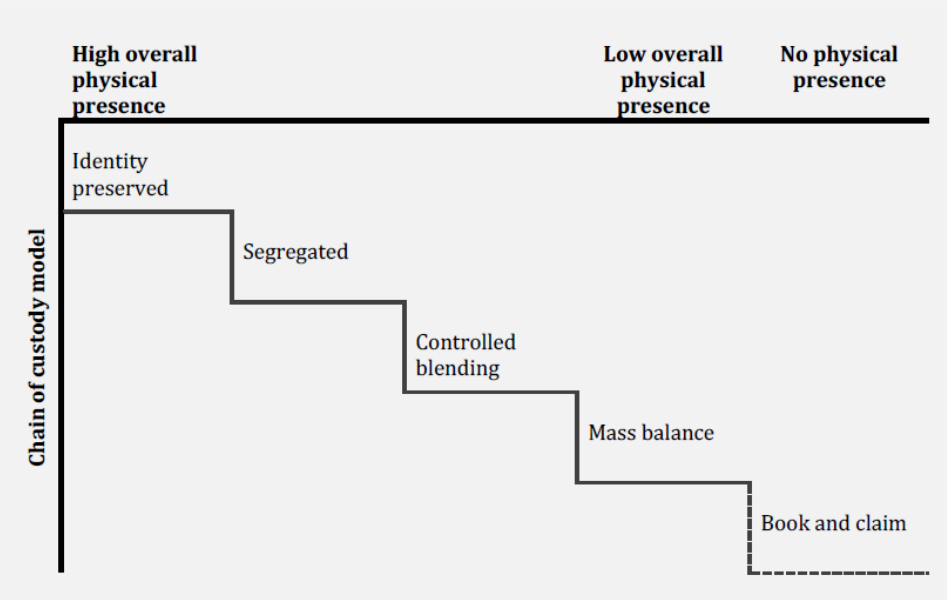
At this time, the chemical recycling industry acknowledges a lack of agreed rules pertaining to how mass balance should be applied to post-consumer recycled content inputs and various process outputs in these potentially complex manufacturing systems, and how that PCR content is potentially allocated. In short, the industry itself is still in the early stages of defining and using mass balance for recycled plastics, and the conversation is far from being ready for the consumer marketplace. Substantial work remains to be done by industry stakeholders to agree on mass balance applications and to demonstrate the use of mass balance at fully operational facilities. **APR recommends that the FTC continue to uphold its guidance based on "per-product or annual weighted average calculation methods" and not extend to other methods such as mass balance, credit trading or other systems.** Claims based on mass balance cannot provide physical traceability of the recycled content into the consumer product, which makes recycled content claims deceptive based on consumer understanding.

BACKGROUND ON CHAIN OF CUSTODY MODELS AND PHYSICAL TRACEABILITY

Chain of custody models are used to improve clarity on the flow of materials throughout supply chains. It is essentially a process by which inputs and outputs and associated information are transferred, monitored, and controlled as they move through each step in the relevant supply chain. ISO 22095:2020: Chain of Custody defines and provides general requirements for five different chain of custody models: Identify preserved, Segregated, Controlled blending, Mass balance and Book and Claim.[74] The first three of these models allow for tracking on PCR through to a product claim, but Mass Balance and Book and Claim provide little to no physical traceability to the product. **As noted by NIST, "a key characteristic of [mass balance] MB model is that the physical presence of the desired characteristic in the product is low or unknown." (emphasis added).** This means Mass Balance and Book and Claim generally cannot prove the physical presence of post-consumer recycled content in the product used by the consumer.[3]

[3] See the NIST report, An Assessment of Mass Balance Accounting Methods for Polymers Workshop Report, for an introduction to mass balance and chain of custody tracking.

Figure 14. Mass balance provides little to no physical traceability of recycled content compared to other chain of custody tracking. Source: UL Standards[75]



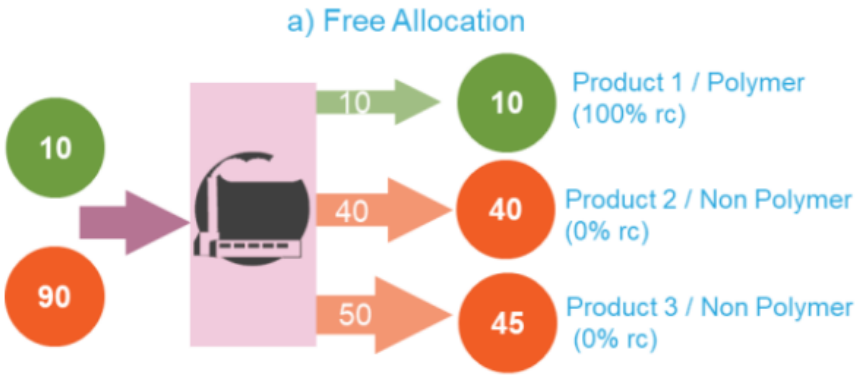
Consumers must trust there is actual recycled content in the actual product, and claims must be as representative of this intention as possible. APR urges the FTC to uphold Chain of Custody models that uphold physical traceability of post-consumer recycled content to provide consumers with strong evidence of post-consumer recycled content in the product they have purchased. Current mechanical recycling can use the first three Chain of Custody models and can provide **reasonable trust in the post-consumer recycled content of the actual product.** Mass balance cannot meet this standard, and a consumer-facing recycled content claim based on mass balance allocations would be deceptive. APR encourages the FTC to warn against new kinds of claims based on referencing "mass balance" calculations, unless the claim can be substantiated by evidence of consumer understanding of these terms and trust there is recycled content in the actual product.

COMPLICATIONS WITH MASS BALANCE ALLOCATIONS AND REPRESENTATION OF RECYCLED CONTENT

According to the NIST report, several key terms and concepts of mass balance are "currently undefined or controversial among the industry."[76] This includes how the amount of recycled content is allocated to different product outputs. There is particular concern about the use of free allocation methods under mass balance that may overstate the amount of recycled content in a given product. There are four methods to allocate recycled content inputs to the final product outputs: proportional, free allocation, non-proportional fuel exempt and non-proportional polymer only.[77] Currently there is no harmonization between certifying bodies on allocation methods, and this was flagged by NIST as "a key area where standards are needed to maintain consumer trust."[78] Of particular concern is the use of free allocation. Under free allocation, a company can

choose to allocate all its recycled content into one product line. For example, if a company uses 90 tons of virgin plastic and 10 tons of recycled content, and produces three types of products (A,B,C), the company can claim all 10 tons of recycled content went into Product A and no recycled content in Products B or C. Yet there is no physical traceability that any of the tons of recycled content ended up in Product A, much less any traceability for all 10 tons being used in Product A. The NIST report states that with free allocation, "concerns arise regarding consumer understanding and trust."[79]

Figure 15. Free allocation assigns all the recycled content inputs into one product type.



Until there is greater industry understanding and alignment of certification standards to address mass balance claims, APR believes it is detrimental to consumer trust to allow claims based on mass balance calculations.

CONSUMERS HAVE NO UNDERSTANDING OF MASS BALANCE CLAIMS

Based on APR's consumer survey, two-thirds (66%) of adults have little or no awareness of the term "mass balance," and less than 1% know the exact definition of the term "mass balance."[80] In addition, there remains substantial debate within the recycling industry about the application of mass balance accounting, and substantial work remains to be done within industry stakeholders to agree upon mass balance applications and to demonstrate the use of mass balance at fully operational facilities.[81] It is not reasonable to expect consumer understanding of this accounting method when there remains a lack of industry consensus. In addition, recent media articles have already cast doubt on the validity of mass balance accounting, calling it "tricky math"[82] or a "simplistic and meaningless bookkeeping exercise."[83] Specifically, this article, "Your 'Recycled' Grocery Bag Might Not Have Been Recycled," questioned whether consumers can actually trust that there is recycled content in a product based on mass balance accounting.[84] Given the lack of industry consensus on mass balance applications, little to no consumer awareness of this terminology, and the current distrust in recycled content labels, APR urges the FTC to take caution and not permit mass balance claims to validate recycled content at this time.

OTHER APPLICATIONS OF LABELING ON MASS BALANCE ARE INAPPROPRIATE FOR RECYCLING

While mass balance is used in certain kinds of certification claims – where companies use third-party certification for "fair trade" sourcing for cacao and coffee for example – that does not suggest that mass balance would be appropriate for recycling for several reasons. First, "fair trade" claims are based on a certification by a licensing body and all claims must be submitted for approval. Certification claims are subject to additional scrutiny by the FTC, and must also not be misleading, as seen by these warning letters issued by the FTC.[85] In the case of recycling, there is no comparable governing body to certify recycled content claims, much less in a way that would comply with FTC standards.

Second, even though Fairtrade products are certified under an official program, they must still follow strict guidelines for how to validate claims on-pack, including specific kinds of detail to substantiate the claim. Here is one such example of required consumer disclosure on the packaging: "The quantity of [mass balance ingredient] required for this product is sourced, traded and audited as Fairtrade, ensuring [mass balance ingredient name] producers receive Fairtrade terms. It may be mixed {during processing} with non-certified [mass balance ingredient], so that the total matches the amount sourced as Fairtrade (mass balance), total xx%. For more {information} visit info.fairtrade.net/sourcing." In addition to including this information on the package, the company must also ensure information about the claim is made readily available to the consumer in a Licensee and/or brand hosted web page that must be listed on the packaging, and the contents of this page must be submitted to the licensing body for approval. Because there is no certifying body for recycled content, it is impractical to include this kind of substantiation on-pack, or monitor, enforce, or update this level of validation in a similar context.

Lastly, Fairtrade is a set of standards around sourcing ingredients that require purchasers to comply with specific guidelines and practices, rather than a statement about the actual physical makeup of a product. Indeed, the Fairtrade standards require that the claim or packaging must not imply that an ingredient sourced using mass balance is physically in the product. However, in the case of recycled content, as the current Green Guides recognize, consumers understand the claim to be about the actual content of the product (even if some averaging is allowed). In short, the FTC should be wary of arguments about the usefulness of mass balance in other contexts - particularly with well-developed existing certification bodies and practices – and should not permit unqualified or otherwise novel mass balance claims to be made in the recycling context.

RECYCLED CONTENT CLAIMS SHOULD NOT BE BASED ON CREDIT TRADING SCHEMES

> *Response to 8.Recycled Content, 16 CFR 260.13. The Guides suggest marketers can substantiate "recycled content" claims using per-product or annual weighted average calculation methods. Should the Guides be revised to provide guidance on making "recycled*

content" claims based on alternative method(s), e.g., mass balance calculations, certificate (i.e., credit or tagging) systems, or other methods?

Similar to the mass balance approach, the use of recycled content trading schemes cannot provide any physical traceability that the product used by the consumer has any actual recycled content. As outlined above, recycled content claims are understood by consumers as conveying the actual amount of content in a product. Making recycled content claims based on credits or trading schemes would be misleading to the consumer and undermine the trust in these claims because there is no physical traceability of recycled content in the given product. APR does not support the use of credit or tagging schemes or any similar "Book and Claim" accounting under Chain of Custody models.

It is not reasonable to expect consumers to understand complex credit or trading schemes that may be used for certain ESG or other sustainability goals, especially when credits are sometimes traded across product lines or even country lines, which is sometimes called 'multi-site' or 'group level' mass balance. Consumer-facing claims in this area are likely to be confusing to consumers and therefore misleading.

Additionally, there continue to be a broader policy debate about the effectiveness of credit schemes, and APR does not feel it is the appropriate role of the FTC to put its thumb on the scales by suggesting that credit-related claims can be substantiated unless and until there is sufficient consensus on this point. Recycling credit schemes are far less mature than carbon offset programs. Buying credits for recycled content has not been shown to drive companies to invest in the capital equipment and R&D to add recycled content to new product lines. Rather, there are concerns it will likely allow companies to marginally pay for someone else's investment without taking the more impactful and needed steps to transition toward a circular economy. There are also particular concerns about how trading might flow across international boundaries and accountability for plastics sent to developing countries. As such, APR suggests clear guidance to prohibit the use of Book and Claim accounting as validation for any recycled content claims.

TREND TOWARD THIRD PARTY CERTIFICATION OF POST-CONSUMER RECYCLED CONTENT

There are a growing number of standards being developed to provide third-party certification of post-consumer recycled plastic. APR is a strong supporter of third-party certification to increase transparency and accountability for the use of post-consumer recycled plastic. PCR certification would confirm the consistent sourcing of recycled resins, guarantee that these resins are produced from post-consumer feedstocks versus post-industrial or other sources, and guarantee a level competitive playing field for companies to meet the same standards. These certification programs have largely been voluntary to date but are starting to appear in regulatory requirements in recent years. California[86] and Oregon[87] now require certified post-consumer recycled content in some products, and several states give authority to their state agencies to consider requiring

third party PCR certification through future rulemaking. APR recommends that the FTC evaluate this trend toward third-party certification in future revisions of the Green Guides as a potential requirement for substantiating recycled content claims in order to provide the highest level of verification for consumer claims.

SECTION 5. ADDITIONAL FEEDBACK ON "RECYCLABILITY" CLAIMS

Clear, effective, and accurate consumer-facing labeling is a critical part of improving plastics recycling. Consumers deserve accurate and useful information related to how to properly handle the end of life of a product or packaging, and more than 75% of consumers look for recycling information on the packaging label.[88] Accurate labeling is widely recognized as a core component of a comprehensive recycling strategy by many prominent groups including in the EPA's National Recycling Strategy, the Ellen MacArthur Foundation's New Plastic Economy report, the U.S. Plastics Pact Roadmap, the Pew Charitable Trust's Breaking the Wave report, and many others. Better labeling can increase consumer participation in recycling and reduce contamination rates to ensure more materials are effectively recycled into new products.

This section will cover:

1. Maintain the current threshold for widely recyclable plastics with stable markets.
2. Recyclability is not a simple yes or no. There needs to be a pathway to become recyclable for products under the 60% threshold.
3. Claims should not be qualified based on fluctuations in community programs.
4. RIC codes on plastic packaging are used by recyclers and should be maintained.
5. The U.S. needs a certified national labeling system.

MAINTAIN 60% COLLECTION THRESHOLD FOR UNQUALIFIED CLAIMS

> *Response to Question 6. Recyclable, 16 CFR 260.12. The Guides provide that marketers can make an unqualified "recyclable" claim when recycling facilities are available to a substantial majority of consumers or communities where the item is sold. "Substantial majority" is defined as 60%. a. Should the Guides be revised to update the 60% threshold? If so, why, and what guidance should be provided? If not, why not? What evidence supports your proposed revision? Is there any recent consumer perception research relevant to the 60% threshold?*

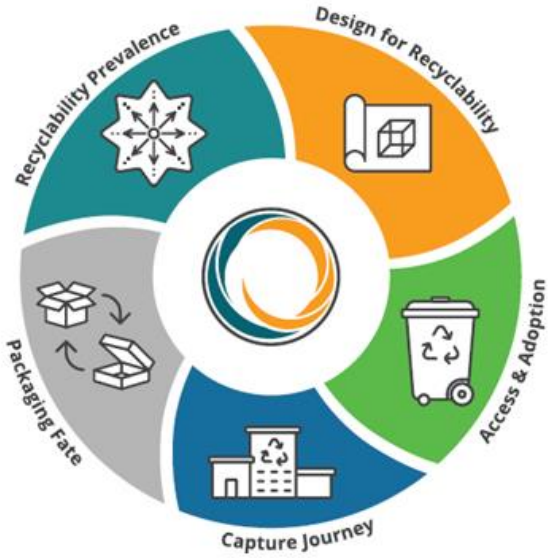
APR encourages the FTC to maintain its current threshold for unqualified claims for recyclability claims. The plastic items that most residents buy, use and put in their recycling bins – water and soda bottles, laundry detergent jugs, yogurt tubs – do get recycled and there is a strong, immediate need to collect and recycle more of these materials across the U.S. 80% of rigid plastic packaging is polyethylene terephthalate (PET), high-density polyethylene (HDPE) and polypropylene (PP). These three packaging types are the most widely recyclable as well as the most commonly used by households and currently meet the FTC guidance for recyclability.

The key to rapidly improving U.S. plastics recycling is to focus on scaling up collection programs for these materials. It is critical that consumers trust in the labeling of these products as recyclable and recycled in order to increase recycling rates. However, as noted in APR's comments in Section 2, there remains a widespread use of misleading claims such as "please recycle" or the recycling symbol without any qualification that is detrimental to consumer trust in recycling. **As such, APR encourages the FTC to maintain the current 60% threshold and to increase enforcement of unqualified claims that erode consumer confidence in the proven recyclability of these core materials.**

QUALIFIED RECYCLABILITY CLAIMS DEPEND ON MULTIPLE FACTORS AND NEED PATHWAY FOR DEVELOPING PROGRAMS

Unfortunately, the question of whether a product or packaging is recyclable does not have a simple answer. To start, there are many different types of recycling programs, including curbside recycling, drop off centers, mail back programs, and in-store drop-off centers. What is collected for recycling varies by region and access to markets. Urban areas tend to have greater access to programs because of the population density and amount of material generated. Some materials are easier to ship to domestic markets while other heavier materials like glass can only be shipped to more local and regional markets because they are heavy and expensive to transport. Decisions about what to collect for recycling are also made primarily at the local level through a largely decentralized network of community programs. Combined, all these factors and more have led to a complex process of determining recyclability and has resulted in a current patchwork of recycling lists and contributed to consumer confusion about recycling.

The FTC guidance is clear on an unqualified claim and when a product is widely recyclable. Further, the FTC Green Guides do not prohibit a company from making a qualified claim regarding recyclability provided the claim is adequately substantiated. However, qualifying this type of claim should be based on more factors than just the percentage of population with access to collection or the existence of recycling markets.



There is currently extensive stakeholder and legislative work underway to measure and define recyclability based on a fuller set of criteria, and to evaluate when a packaging format is effectively working toward becoming recyclable. This assessment would happen on a more frequent basis than the Green Guides updates and consists of a much more technical, multifaceted analysis than the current guidance.

A leading example of this is the Circularity Packaging Assessment Tool developed by The Recycling Partnership.[89] The tool identifies five sets of criteria, or building blocks, to determine recyclability, including but not limited to the 60% access rate currently set by the FTC (see chart at right). This tool will be used to measure progress toward these thresholds so companies can determine if a packaging format is trending toward recyclable or away from recyclable. Unfortunately, it is challenging to incorporate all of these factors into determining recyclability under the Green Guides and also challenging to do so in a way that allows for evolving markets for new materials and regional differences. As such, APR supports a national labeling system with third-party certification as outlined below.

OVERLAP WITH GREEN GUIDES AND STATE POLICIES ON RECYCLABILITY AND LABELING

In addition to stakeholder initiatives, several states are moving forward with legislation, task forces, and other initiatives to define what is recyclable and how products can be labeled. Through SB 54 and SB 343, California will require all packaging to be recyclable, reusable, or compostable, and ban companies from using the recycling symbol on products if it does not meet the 60% accessibility threshold based on the current FTC Green Guides threshold. Several other states have introduced similar labeling bills. In addition, states are exploring how to define what is recyclable both in standalone legislation similar to California and under EPR for packaging regulations (including Oregon, Colorado, and Maine). There is a strong push under EPR regulations for more consistency within states on what is collected for recycling and a uniform statewide list of recyclables. There are also efforts underway to coordinate between states in determining what is considered recyclable through differing collection programs such as curbside recycling or drop-off collection points.

Given the extensive work currently underway to define recyclability through a broader set of criteria, APR suggests the FTC prioritizes the enforcement of the existing Green Guides and to review the recyclability guidance in the next 3-5 years to evaluate how the regulatory and marketplace have evolved at that time.

CLAIMS SHOULD NOT BE QUALIFIED BASED ON FLUCTUATIONS IN COMMUNITY PROGRAMS

> *Response to Question 6. Recyclable, 16 CFR 260.12. b. Should the Guides be revised to include guidance related to unqualified "recyclable" claims for items collected by recycling programs for a substantial majority of consumers or communities but not ultimately recycled due to market demand, budgetary constraints, or other factors? If so, why, and what guidance should be provided? If not, why not? What evidence supports your proposed revision?*

APR does not support a revision to the Green Guides for unqualified recyclability claims where the recyclable materials were ultimately not recycled due to "market demand, budgetary constraints, or other factors." Recyclable materials are a commodity market; they are subject to price fluctuations and changing conditions, as with other commodities like food crops, oil and gas, metals, etc. Many of these fluctuations are temporary in nature due to seasonal trends, or sometimes more significant fluctuations, such as those caused by China's National Sword policy, that over time can lead to positive market corrections.

While many recycling programs have been paused in recent years because of COVID protocols or staffing shortages, this is not related to the strength of recycling markets. For example, many cities had to pause recycling services because there was only enough staff to pick up trash. These were trying times for many social services and not at all indicative of the stability of the U.S. recycling industry. In fact, the U.S. recycling industry was declared essential because of its role in providing feedstocks for U.S. manufacturers.[90] U.S. manufacturers were hard hit by the slowdown in recycling programs because they were not able to source the recycled feedstock to make new plastic, glass, metal, and other products.

In addition, claims covered by the media of the number of U.S. recycling programs closing in response to the China National Sword policy overrepresented the actual impacts.[91] The communities that closed programs or cut back on materials collected were predominantly in smaller communities where recycling has traditionally been challenging and where programs do close due to lack of funding, increased costs for transportation, or other factors. The impact on the overall U.S. population was negligible.

There is growing recognition of the challenges of municipal funding, and states are turning to new regulations to require consumer goods companies to fund recycling programs to take the burden off municipal budgets. Four states have adopted Extended Producer Responsibility (EPR) policies for packaging and 10 states introduced legislation in 2023. EPR for packaging and printed paper is the best proven policy to provide sufficient, ongoing, and dedicated funding to increase recycling.[92] This regulatory approach provides a more comprehensive solution to address the economics of recycling and provides much greater stability for the recycling industry.

Lastly, decisions to start, pause, or stop recycling programs are made at the local level by hauling companies and/or local governments, not by the brand companies who are responsible for labeling the products. It is unfair to hold these companies responsible for decisions outside of their scope of control.

It is, of course, important to consider longer-term trends in market conditions when evaluating recyclability, as is currently done under the Green Guides. This reinforces the need for more frequent reviews of the Guides and the need for a more comprehensive, national labeling program that can be more responsive to these changes. However, temporary fluctuations on a local level should not be included in the FTC's Guidance.

BACKGROUND ON THE RESIN IDENTIFICATION CODES (RIC) ON PLASTICS AND HOW THEY ARE USED TODAY BY THE RECYCLING INDUSTRY

Resin Identification Codes (RIC) were originally developed in 1988 by The Society of the Plastics Industry (SPI), now known as The Plastics Industry Association (PLASTICS), to identify the type of plastic resin used in plastic products.[93] The codes originally consisted of a number inside a triangle formed by "chasing arrows" and apply to seven categories of plastics: #1 PET, #2 HDPE, #3 PVC, #4 LDPE, #5 PP, #6 PS, and #7 "Other." In 2008, ASTM officially took over the administration of RIC and updated the requirements to use a solid triangle around the code rather than the chasing arrows recycling symbol.[94] Currently 36 states require plastic containers to have resin ID codes with the chasing arrows.[95]

The RIC was intended to be a technical code to assist the recycling industry in identifying products for recycling. It was quickly adopted as an educational tool by local recycling programs to tell residents which plastics were accepted for recycling. For example, recycling programs would accept #1 PET and #2 HDPE bottles. Many recycling programs today still refer to the RICs in their residential education, although leading programs are moving away from the codes to focus simply on the product shape, i.e., bottles, milk jugs, etc.

While state RIC regulations typically apply only to rigid plastic containers, RICs have been widely placed across all types of plastic packaging formats and many non-packaging applications. This has contributed greatly to consumer confusion because only rigid plastic containers were recyclable in curbside recycling programs. **APR urges the FTC to pursue strong enforcement against the conspicuous use of RICs and chasing arrows on all packaging that do not meet the Green Guides standard for an unqualified recyclability claim with particular focus on non-rigid plastic packaging and other product types that are not required to display this code based on existing state statutes.**

RICS ON RIGID PLASTIC CONTAINERS ARE USED BY RECYCLING INDUSTRY

APR fully recognizes the consumer confusion caused by the chasing arrows and RICs, and how both have been marketed to imply recyclability. However, APR members still rely on the RIC as technical or several important functions for the recycling industry and it would be detrimental to move away from the codes without an adequate substitution at this time. The RIC codes are used by recyclers to:

- Provide transparency regarding the primary composition of a plastic container through an accessible, required code.

- Allow reclaimers, MRF operators, and local program coordinators to quickly identify the resin type that may be hand-sorted in or out of a stream, are new to a stream, have been redesigned (e.g., into a different resin), or are identified as potentially disruptive.
- Provide incentive for package designers / brands to select a readily recyclable resin for their package, i.e. choosing a #1PET format over a #7 container.
- Discourage companies from falsely marketing containers made from a different type of plastic or with detrimental features.

A useful example of the importance of the RIC is PETG plastics. While PETG may seem very similar to #1 PET to the general public, the two plastic resins behave very differently in the recycling process, and PETG is a contaminant in PET recycling because PETG flakes end up glomming onto PET flake to create clumps that disrupt processes and equipment. APR was one of the leading voices in California to pass regulations that define #1 PET in statute to reduce contamination and improve recycling operations, which in turn helped drive companies away from using PETG and innovation to create other alternatives that are fully compatible with recycling.[96]

APR SUPPORTS CURRENT FTC GUIDANCE ON INCONSPICUOUS USE OF RICS

RICs are not an effective means of consumer education, and leading recycling education programs have moved away from these codes to focus on the shape of the container, instead instructing consumers to recycle bottles, tubs, jugs, and jars, for example. Yet these symbols continue to be widely associated with recyclability by the public and contribute to consumer confusion about plastic recycling.

APR supports the continued use of RIC for technical purposes and the current FTC guidance that allows companies to use the RIC in an inconspicuous location: “If the manufacturer places the RIC, without more, in an inconspicuous location on the container (e.g., embedded in the bottom of the container), it would not constitute a recyclable claim.” APR strongly urges the FTC to provide more specific guidance on the use of the RIC and chasing arrows to reduce consumer confusion and misleading labels. This can include more detail on what is considered inconspicuous, particularly on non-rigid plastic packaging or other products that are not required to use the RIC. **APR also requests greater enforcement through warning letters for products using the RIC with chasing arrows in a conspicuous way on products or packaging that do not meet the Green Guides standard for an unqualified recyclability claim, specifically on non-rigid plastic packaging or other product formats that are not required to bear the RIC under current state statutes.** Lastly, APR supports a national labeling system for consumer education to completely move away from any use of the RIC for non-technical purposes.

THE U.S. NEEDS A COMPREHENSIVE LABELING SYSTEM WITH THIRD PARTY CERTIFICATION

APR strongly supports a comprehensive national labeling system for recycling and third-party verification of recycling claims. Recycling claims currently differ from many common eco-labels in that there is little industry-wide standardization, certification, or regulation on these claims. This contrasts with certified standards such as USDA Organic, Fairtrade, or B Corp Certified, which are often found next to recycling claims on packaging. Research suggests that government or third-party independent labels are perceived as more credible than corporate labels by consumers, which further underscores the need for an accredited labeling system similar to other environmental claims.[97]

A comprehensive labeling system could:

- Provide instructions for consumers on how to recycle
- Allow for flexibility around different systems to recycle such as curbside programs, bottle deposits, store take-back, and drop-off centers
- Require products to be labeled as not recyclable to reduce confusion and contamination
- Describe placement, size, language, and other accessibility features
- Align with similar systems for compostable and reusable products
- Cover a broad array of products and packaging
- Provide guidance on the use of RICs for technical purposes
- Integrate new technologies such as QR codes to provide geographically specific and up-to-date recycling information

Additionally, a third-party certification system would provide the technical expertise to substantiate recycling claims, expand the criteria used to evaluate recyclability, provide a framework to allow for evolving markets for new materials, and provide more frequent updates than the Green Guides to better respond to changes in the recycling industry and packaging. This certification system would provide the greatest level of consumer trust in labeling in alignment with other third-party certified labeling systems.

APR recognizes that the FTC currently does not have the full regulatory authority scope or bandwidth to be the lead agency in developing, maintaining, and enforcing a national labeling system. As national labeling and industry-wide certification proposals are considered, APR encourages the FTC to continue its important enforcement work to root out deceptive recycling claims, as explained throughout these comments, and continue to drive public discussions around clear, non-misleading, and effective recycling claims.

SECTION 6. ADDITIONAL FEEDBACK

REVIEW THE RECYCLABILITY CRITERIA AGAIN WITHIN FIVE YEARS

Recycling has changed substantially over the past ten years, and there are significant policy reform and private sector initiatives currently underway that will dramatically alter recycling regulations, infrastructure, and packaging design of recycling across the U.S. and the globe in the coming years. Significant changes will likely be made in the next five years, and the FTC would be remiss to wait another 10 years to review the recyclability and recycled content criteria. APR requests another review in no more than five years to assess the impacts of the current initiatives and evaluate the need for further FTC guidance at that point.

DEFER RULEMAKING AT THIS TIME TO EMERGING STATE EFFORTS, REEVALUATE IN FIVE YEARS

> *Response to A. General Issues, 19. Should the Commission initiate a proceeding to consider a rulemaking under the FTC Act related to deceptive or unfair environmental claims?*

Governments at the state, federal, and global levels are actively debating and defining the criteria used to determine when a product is classified as recyclable and are swiftly moving toward regulations on recyclability claims, the use of the recycling symbol, and more. These efforts are likely to result in the development of labeling standards that would provide more criteria and that may have a broader scope than the FTC Green Guides. For example, legislation is being considered that would require the use of digital labeling or could require companies to label products as clearly not recyclable. Pursuing an FTC rulemaking process at this juncture may not be a prudent use of FTC resources given the extensive regulatory efforts underway at the state level. APR encourages the FTC to review this consideration again in five years to see how the regulatory and marketplace have evolved at that time. A rule would result in more effective deterrence in this area. However, environmental claims are no different than other product marketing claims in terms of their ability to be enforced if deceptive under Section 5 of the FTC Act.

MAINTAIN GUIDANCE ON DEGRADABLE ADDITIVES

The FTC Green Guides currently state: "It is deceptive to misrepresent, directly or by implication, that a product or package is degradable, biodegradable, oxo-degradable, oxo-biodegradable, or photodegradable." APR requests the FTC maintain this current guidance. APR is concerned degradable additives may present technical challenges for the mechanical recycling process and future uses of the product produced from that process, as documented in this study.[98] Any perceived risk in the technical performance of recycled plastics could impede markets for post-consumer recycled plastics.

STRONGER GUIDANCE ON COMPOSTABILITY CLAIMS

Misleading claims and general consumer confusion about compostable packaging are detrimental to recycling. Research from Closed Loop Partners found 28% of respondents would place packaging labeled as "compostable" in the recycling bin. When residents put compostable packaging in the recycling system, it contaminates the sorting and processing facilities, which leads to increased costs and lower effectiveness. **Clear, accurate labeling and greater enforcement of misleading claims of compostability are needed to differentiate between compostable and recyclable products.**

SECTION 7. CONCLUSION AND RECOMMENDATIONS

APR appreciates the agency's time and resources to carefully review these considerations and craft effective guidance to drive improved packaging design, stronger recycling programs, and more accurate information for consumers. APR urges the FTC to revise the recyclability and recycled content claims to provide stronger guidance that serves to promote more accurate information to consumers about recycling that in turn encourages greater consumer participation. While much work needs to be done to improve plastics recycling, there are functioning domestic markets for recycling the most widely used consumer plastic packaging, and there is an unprecedented level of regulatory and voluntary initiatives underway to scale up plastic recycling in the coming years as a solution to reduce plastic waste and pollution.

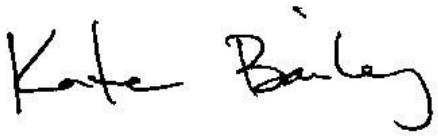
In summary, APR recommends the following actions in revising the Green Guides:

- Adopt more narrow guidance on recycled content claims to only allow claims based on the use of post-consumer recycled (PCR) content under the ISO definition.
- Do not permit recycled claims based on methods such as "mass balance," credit trading or other similar systems.
- Increase enforcement of deceptive unqualified claims of both recyclability and recycled content.
- Maintain the current threshold of 60% consumer access for unqualified claims for recyclability claims.
- Do not allow short-term or local-level fluctuations in community programs to impact recyclability claims.
- Conduct another review of the recyclability and recycled content guidance within five years to assess the impacts of the current initiatives and evaluate the need for further FTC guidance at that point.
- Reinforce the guidance that the advertisers bear the burden of showing the 60% recyclable threshold, and APR's technical recycling determination is not a substitute.

- Reinforce the guidance that materials that are not technically "capable of being recycled" because of detrimental features should not be labeled as recyclable.
- Provide greater enforcement through warning letters for products using the RIC and chasing arrows in a conspicuous way on products or packaging that do not meet the Green Guides standard for an unqualified recyclability claim, specifically on non-rigid plastic packaging or other product formats that are not required to bear the RIC.

APR strongly encourages more regular reviews and updates of the recyclability and recycled content claims under the Green Guides. This is a fast-moving area of global concern with regulations under development at all levels of government from the local level all the way to the global level. We are available at your convenience as technical experts and a resource for your team on the entire process from designing to collecting to effectively recycling plastic packaging. Please contact Kate Bailey, Chief Policy Officer, at katebailey@plasticsrecycling.org.

Sincerely,



Steve Alexander
CEO/President

Kate Bailey
Chief Policy Officer

ADDITIONAL ATTACHMENTS SUBMITTED

- 2021 Consumer Survey of Recycling Terms conducted for APR

[1] The Association of Plastic Recyclers, https://plasticsrecycling.org/ (last visited Apr. 23, 2023).
[2] Circularity in Action, *2021 U.S. Post-consumer Plastic Recycling Data Dashboard*, https://circularityinaction.com/2021PlasticRecyclingData (last visited Apr. 23, 2023).
[3] World Wildlife Fund, *Public Opinion Surrounding Plastic Consumption and Waste Management of Consumer Packaging: 2022 Update*, at 9 (Jun. 6, 2022), https://www.worldwildlife.org/publications/public-opinion-surrounding-plastic-consumption-and-waste-management-of-consumer-packaging-2022-update.
[4] The Recycling Partnership, *The State of Curbside Recycling in 2020*, https://recyclingpartnership.org/stateofcurbside/ (last visited Apr. 23, 2023).

[5] Ellen Macarthur Foundation, *The Global Commitment 2022: Overview*, https://ellenmacarthurfoundation.org/global-commitment-2022/overview (last visited Apr. 23, 2023).
[6] Recycling Today, *Aligning PCR supply with demand: "Exponential growth" in supply will be needed to meet recycled-content targets* (Mar. 11, 2022), https://www.recyclingtoday.com/news/recycled-plastic-supply-demand-mismatched/.
[7] The Association of Plastic Recyclers, Recycling Terms Survey (Mar. 2021), https://plasticsrecycling.org/images/library/Recycling-Terms-Survey2021.pdf.
[8] *Id.*
[9] NIST, NIST SP 1500-206, An Assessment of Mass Balance Accounting Methods for Polymers Workshop Report, at v (Feb 7. 2022), https://www.nist.gov/publications/assessment-mass-balance-accounting-methods-polymers-workshop-report.
[10] The Association of Plastic Recyclers, https://plasticsrecycling.org/ (last visited Apr. 23, 2023).
[11] The Association of Plastic Recyclers, *Membership*, https://plasticsrecycling.org/ (last visited Apr. 23, 2023).
[12] China Sustainable Plastics Association, *Report & Project*, http://www.cspareplas.org/yjybg (last visited Apr. 23, 2023).
[13] ECOCE, https://www.ecoce.mx/ (last visited Apr. 23, 2023).
[14] Plastics Recycling Conference, https://www.plasticsrecycling.com/ (last visited Apr. 23, 2023).
[15] World Wildlife Fund, *Public Opinion Surrounding Plastic Consumption and Waste Management of Consumer Packaging: 2022 Update*, at 9 (Jun. 6, 2022), https://www.worldwildlife.org/publications/public-opinion-surrounding-plastic-consumption-and-waste-management-of-consumer-packaging-2022-update.
[16] The Recycling Partnership, *Recycling Behavior: Behavior Center*, https://recyclingpartnership.org/behavior-change/ (last visited Apr. 23, 2023).
[17] Shelton Grp, *Old Dogs, New Tricks*, https://sheltongrp.com/work/old-dogs-new-tricks (last visited Apr. 23, 2023).
[18] Jeva Lange, *Americans Overwhelmingly Want U.S. to Do More on Climate Change, Heatmap Poll Finds*, Heatmap (Mar. 23, 2023), https://heatmap.news/politics/americans-overwhelmingly-want-u-s-to-do-more-on-climate-change-heatmap-poll-finds.
[19] Johnny Wood, *This is what stops people from recycling more, finds a global survey*, World Economic Forum (Nov. 18, 2021), https://www.weforum.org/agenda/2021/11/barriers-to-recycling-sustainability-survey/.
[20] Circularity in Action, *2021 U.S. Post-consumer Plastic Recycling Data Dashboard*, https://circularityinaction.com/2021PlasticRecyclingData (last visited Apr. 23, 2023).
[21] *Id.*
[22] *Id.*
[23] *Id.*
[24] Basel Convention, http://www.basel.int/ (last visited Apr. 23, 2023).
[25] Circularity in Action, *2021 U.S. Post-consumer Plastic Recycling Data Dashboard*, https://circularityinaction.com/2021PlasticRecyclingData (last visited Apr. 23, 2023).
[26] Franklin Associates, A Division of Eastern Research Group (ERG), Life Cycle Impacts for Postconsumer recycled resins: PET, HDPE, and PP (Dec. 2018), https://plasticsrecycling.org/images/library/2018-APR-LCI-report.pdf.
[27] EPA, Advancing Sustainable Materials Management: 2018 Tables and Figures (Dec. 2020), https://www.epa.gov/sites/default/files/2021-01/documents/2018_tables_and_figures_dec_2020_fnl_508.pdf.
[28] The Association of Plastic Recyclers, *Buyers and Sellers Directory*, https://plasticsrecycling.org/buyers-and-sellers-directories (last visited Apr. 23, 2023).
[29] Plastics Markets, https://www.plasticsmarkets.org/ (last visited Apr. 23, 2023).
[30] Ocean Conservancy & Resource Recycling Systems (RSS), Recommendations for Recycled Content: Requirements for Plastic Goods and Packaging (Feb. 2022), https://oceanconservancy.org/wp-content/uploads/2022/02/RRS_OceanConReport_Feb2022_Final.pdf.
[31] Ellen Macarthur Foundation, *The Global Commitment 2022: Overview*, https://ellenmacarthurfoundation.org/global-commitment-2022/overview (last visited Apr. 23, 2023).

[32] Recycling Today, *Aligning PCR supply with demand: "Exponential growth" in supply will be needed to meet recycled-content targets* (Mar. 11, 2022), https://www.recyclingtoday.com/news/recycled-plastic-supply-demand-mismatched/.
[33] Ellen Macarthur Foundation, *The Global Commitment 2022: Overview*, https://ellenmacarthurfoundation.org/global-commitment-2022/overview (last visited Apr. 23, 2023).
[34] U.S. Plastics Pact, *U.S. Plastics Pact's Problematic and Unnecessary Materials List*, https://usplasticspact.org/problematic-materials/ (last visited Apr. 23, 2023).
[35] NAPCOR, *NAPCOR'S 2021 Pet Recycling Report Shows Largest Amount of Postconsumer Pet Ever Collected in U.S.*, https://napcor.com/news/2021-pet-recycling-report/ (last visited Apr. 23, 2023).
[36] Ocean Conservancy & Resource Recycling Systems (RSS), Recommendations for Recycled Content: Requirements for Plastic Goods and Packaging (Feb. 2022), https://oceanconservancy.org/wp-content/uploads/2022/02/RRS_OceanConReport_Feb2022_Final.pdf.
[37] Resource Recycling, *Data Corner: PET bottle recovery rate* (last updated Apr. 4, 2023), https://resource-recycling.com/recycling/2023/02/28/data-corner-pet-bottle-recovery-rate/.
[38] EPA, Advancing Sustainable Materials Management: 2018 Tables and Figures (Dec. 2020), https://www.epa.gov/sites/default/files/2021-01/documents/2018_tables_and_figures_dec_2020_fnl_508.pdf.
[39] The Recycling Partnership, *The State of Curbside Recycling in 2020*, https://recyclingpartnership.org/stateofcurbside/ (last visited Apr. 23, 2023).
[40] Ball, *50 States of Recycling*, https://www.ball.com/sustainability/real-circularity/50-states-of-recycling (last visited Apr. 23, 2023).
[41] Thomas Hundertmark et al., *Accelerating plastic recovery in the United States*, McKinsey & Company (Dec. 20, 2019), https://www.mckinsey.com/industries/chemicals/our-insights/accelerating-plastic-recovery-in-the-united-states.
[42] Circularity in Action, *2021 U.S. Post-consumer Plastic Recycling Data Dashboard*, https://circularityinaction.com/2021PlasticRecyclingData (last visited Apr. 23, 2023).
[43] The Association of Plastic Recyclers, *APR Press Release: New Association of Plastic Recyclers State-of-the-Industry Report Shows Strength of US Plastic Recycling* (Aug. 9, 2022), https://plasticsrecycling.org/news-and-media/new-association-of-plastic-recyclers-state-of-the-industry-report-shows-strength-of-us-plastic-recycling.
[44] Ocean Conservancy & Resource Recycling Systems (RSS), Recommendations for Recycled Content: Requirements for Plastic Goods and Packaging (Feb. 2022), https://oceanconservancy.org/wp-content/uploads/2022/02/RRS_OceanConReport_Feb2022_Final.pdf.
[45] *Id.*
[46] The Recycling Partnership, *The State of Curbside Recycling in 2020*, https://recyclingpartnership.org/stateofcurbside/ (last visited Apr. 23, 2023).
[47] *Id.*
[48] *Id.*
[49] World Wildlife Fund, *Public Opinion Surrounding Plastic Consumption and Waste Management of Consumer Packaging: 2022 Update*, at 9 (Jun. 6, 2022), https://www.worldwildlife.org/publications/public-opinion-surrounding-plastic-consumption-and-waste-management-of-consumer-packaging-2022-update.
[50] The Recycling Partnership, *Paying it Forward*, https://recyclingpartnership.org/paying-it-forward/ (last visited Apr. 23, 2023).
[51] *Id.*
[52] The Association of Plastic Recyclers, *APR Design Guide*®, https://plasticsrecycling.org/apr-design-guide (last visited Apr. 23, 2023).
[53] Environmental advertising: recycling symbol: recyclability: products and packaging, SB 343, 2021 Leg., 2021-2022 Reg. Sess. (Cal. 2021), https://leginfo.legislature.ca.gov/faces/billTextClient.xhtml?bill_id=202120220SB343.
[54] Oregon.Gov, *Production and Design: Popular Packaging Attributes*, https://www.oregon.gov/deq/mm/production/Pages/Materials-Attributes.aspx (last visited Apr. 23, 2023).

[55] Ocean Conservancy & Resource Recycling Systems (RSS), Recommendations for Recycled Content: Requirements for Plastic Goods and Packaging (Feb. 2022), https://oceanconservancy.org/wp-content/uploads/2022/02/RRS_OceanConReport_Feb2022_Final.pdf.
[56] Shelton Grp, *The Buzz On Buzzwords*, https://sheltongrp.com/work/buzz-on-buzzwords-2023 (last visited Apr. 23, 2023).
[57] *Id.*
[58] EPA, *Comprehensive Procurement Guideline (CPG) Program*, https://www.epa.gov/smm/comprehensive-procurement-guideline-cpg-program (last visited Apr. 23, 2023).
[59] Snapshot, EPA.gov, *Solid Waste Management on Tribal Lands* (Jan. 19, 2017), https://19january2017snapshot.epa.gov/www3/region9/waste/archive/tribal/waste-reduction/buy.html.
[60] Recycling Works Massachusetts, *Buying Recycled Products*, https://recyclingworksma.com/learn-more/buying-recycled-products/ (last visited Apr. 23, 2023).
[61] Connecticut's Official State Website, *Buy Recycled Products*, https://portal.ct.gov/DEEP/Reduce-Reuse-Recycle/Buy-Recycled-Products (last visited Apr. 23, 2023).
[62] Athanasios Polyportis et al., *Guidelines to Foster Consumer Acceptance of Products Made from Recycled Plastics*, Circular Economy and Sustainability (Aug.10, 2022), https://link.springer.com/article/10.1007/s43615-022-00202-9#citeas.
[63] *Id.*
[64] The Association of Plastic Recyclers, Recycling Terms Survey (Mar. 2021), https://plasticsrecycling.org/images/library/Recycling-Terms-Survey2021.pdf.
[65] *Id.*
[66] Kate Bailey & Kate Eagle, *Recycled plastic content requirements are here and more are coming soon. Here's what you need to know.*, The Association of Plastic Recyclers (Mar. 16, 2023), https://plasticsrecycling.org/news-and-media/recycled-plastic-content-requirements-are-here-and-more-are-coming-soon-here-s-what-you-need-to-know.
[67] U.S. Plastics Pact, *Let's Take Action*, https://usplasticspact.org/take-action/ (last visited Apr. 23, 2023).
[68] Zero Waste Europe et al., Recycled content in plastics: The mass balance approach (2021), https://zerowasteeurope.eu/wp-content/uploads/2021/05/rpa_2021_mass_balance_booklet-2.pdf.
[69] Letter from Justin Wilkes, ECOS Executive Director on behalf of the Rethink Plastic alliance, to Mattia Pellegrini, Head of Unit, Waste Management and Secondary Materials (ENV.B.3), EU, at 2 (Sept. 21, 2020), https://rethinkplasticalliance.eu/wp-content/uploads/2020/09/declaration_of_recycled_content_letter.pdf.
[70] The Association of Plastic Recyclers, Recycling Terms Survey (Mar. 2021), https://plasticsrecycling.org/images/library/Recycling-Terms-Survey2021.pdf.
[71] NIST, NIST SP 1500-206, An Assessment of Mass Balance Accounting Methods for Polymers Workshop Report, at v (Feb 7. 2022), https://www.nist.gov/publications/assessment-mass-balance-accounting-methods-polymers-workshop-report.
[72] Closed Loop Partners, *Research and analysis: Assessing Molecular Recycling Technologies in the United States and Canada*, https://www.closedlooppartners.com/research/transitioning-to-a-circular-system-for-plastics-assessing-molecular-recycling-technologies-in-the-united-states-and-canada-2/ (last visited Apr. 23, 2023).
[73] NIST, NIST SP 1500-206, An Assessment of Mass Balance Accounting Methods for Polymers Workshop Report, at 4 (Feb 7. 2022), https://www.nist.gov/publications/assessment-mass-balance-accounting-methods-polymers-workshop-report.
[74] ISO, ISO 22095:2020, Chain of custody — General terminology and models (Oct. 2020), https://www.iso.org/standard/72532.html.
[75] William Hoffman, Concepts and Definitions in Mass Balance, UL Standards (May 3, 2021), https://ulstandards.ul.com/wp-content/uploads/2021/07/NIST-Definitions-5-3-2021.pdf.
[76] NIST, NIST SP 1500-206, An Assessment of Mass Balance Accounting Methods for Polymers Workshop Report, at 10 (Feb 7. 2022), https://www.nist.gov/publications/assessment-mass-balance-accounting-methods-polymers-workshop-report.
[77] *Id.* at 12-14.

[78] *Id.* at 12.
[79] *Id.* at 13.
[80] The Association of Plastic Recyclers, Recycling Terms Survey (Mar. 2021), https://plasticsrecycling.org/images/library/Recycling-Terms-Survey2021.pdf.
[81] NIST, NIST SP 1500-206, An Assessment of Mass Balance Accounting Methods for Polymers Workshop Report (Feb 7. 2022), https://www.nist.gov/publications/assessment-mass-balance-accounting-methods-polymers-workshop-report.
[82] Ian Morse, *Your 'Recycled' Grocery Bag Might Not Have Been Recycled*, Undark (Mar. 20, 2023), https://undark.org/2023/03/20/your-recycled-grocery-bag-might-not-have-been-recycled/.
[83] ECOS et al., Determining recycled content with the 'mass balance approach' (Feb. 2021), https://ecostandard.org/wp-content/uploads/2021/02/2021_zwe_joint-paper_recycling_content_mass_balance_approach.pdf.
[84] Ian Morse, *Your 'Recycled' Grocery Bag Might Not Have Been Recycled*, Undark (Mar. 20, 2023), https://undark.org/2023/03/20/your-recycled-grocery-bag-might-not-have-been-recycled/.
[85] FTC, *FTC Sends Warning Letters about Green Certification Seals* (Sept. 14, 2015), https://www.ftc.gov/news-events/news/press-releases/2015/09/ftc-sends-warning-letters-about-green-certification-seals.
[86] Cal Recycle, *Single-Use Carryout Bag Ban (SB 270)*, https://calrecycle.ca.gov/plastics/carryoutbags/ (last visited Apr. 23, 2023).
[87] Modernizing Oregon's Recycling System, SB 582, 81st Leg. Assemb., 2021 Reg. Sess. (Or. 2021), https://olis.oregonlegislature.gov/liz/2021R1/Downloads/MeasureDocument/SB582/Enrolled.
[88] The Recycling Partnership, *Consumer Research on Recycling Behavior and Attitudes Regarding On-Pack Labeling* (Mar. 10, 2023), https://recyclingpartnership.org/consumer-research-on-recycling-behavior-and-attitudes-regarding-on-pack-labeling/.
[89] The Recycling Partnership, *Assess the Circularity of Your Package*, https://recyclingpartnership.org/circular-packaging-assessment/ (last visited Apr. 23, 2023).
[90] Kate Bailey, *Recycling Is Deemed "Essential," and That's a Big Damn Deal*, Waste 360 (Apr. 19, 2020), https://www.waste360.com/recycling/recycling-deemed-%E2%80%9Cessential%E2%80%9D-and-thats-big-damn-deal.
[91] Cole Rosengren et al., *How recycling has changed in all 50 states*, Waste Dive (last updated Nov. 15, 2019), https://www.wastedive.com/news/what-chinese-import-policies-mean-for-all-50-states/510751/.
[92] Ellen Macarthur Foundation, *Extended Producer Responsibility: Overview*, https://ellenmacarthurfoundation.org/extended-producer-responsibility/overview (last visited Apr. 23, 2023).
[93] Packaging Law, *Why Are Some Resin Codes in a Solid Triangle and Others in Chasing Arrows?* (Sept. 22, 2021), https://www.packaginglaw.com/ask-an-attorney/why-are-some-resin-codes-solid-triangle-and-others-chasing-arrows.
[94] *Id.*
[95] State of Oregon Department of Environmental Quality, Recycling Labeling Laws Today - Truth In Labeling Task Force, Oregon.gov, https://www.oregon.gov/deq/recycling/Documents/recTILlawsToday.pdf (last visited Apr. 23, 2023).
[96] Jim Johnson, *California rules: No more No. 1 resin code for PETG*, Plastic News (Feb. 27, 2018), https://www.plasticsnews.com/news/california-rules-no-more-no-1-resin-code-petg.
[97] Athanasios Polyportis et al., *Guidelines to Foster Consumer Acceptance of Products Made from Recycled Plastics*, Circular Economy and Sustainability (Aug.10, 2022), https://link.springer.com/article/10.1007/s43615-022-00202-9#citeas.
[98] Miguel Aldas et al., *Effect of the Prodegradant-Additive Plastics Incorporated on the Polyethylene Recycling*, 2018 International Journal of Polymer Science 1, https://www.hindawi.com/journals/ijps/2018/2474176/.